

The National Wilderness Preservation System: Character and Values

Ken Cordell, Forest Service Research, and
Ralph Swain, Forest Service Wilderness Management

www.srs.fs.fed.us/trends

ABOUT THIS PRESENTATION

- 1. Some selected principles of good Wilderness management**
- 2. The changing social context**
- 3. A big picture description of the NWPS and the characteristic of “Wildness”**
- 4. A Framework of Wilderness values**
- 5. Social Values and Group Differences**
- 6. Economic Values**
- 7. Ecological and Intrinsic Values**

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SOME PRINCIPLES of GOOD WILDERNESS MANAGEMENT

- Wilderness is first and foremost a national resource for the benefit of all, human society and non-humans alike
- National, regional, and local social, economic, political, and environmental conditions and trends define the changing context within which Wilderness is managed. It is important to know the trends
- The optimum Wilderness management goals may not always please local interests or the current visitors
- There are equity and other social issues associated with every management decision made and accounting for them is a responsibility in good management
- Fragmented (compartmentalized) decision making is easier, but not better
- Good planning is forward looking, based on what could and should be, not necessarily what is or has been

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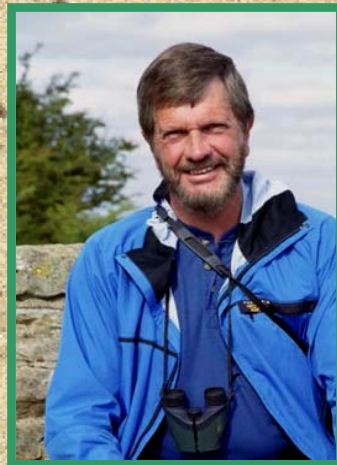
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Footprints on the Land:

**An Assessment of
Demographic Trends
and the Future of
Natural Resources
in the United States**

**By
H. Ken Cordell
Christine Overdevest,
Principal Authors**



**DEMOGRAPHIC DATA
SOURCE**

This published book examined the population, demographic, urban, rural, economic, leisure and recreation trends of the United States. An update is underway.

Dominant Socioeconomic Forces Shaping the Future of the United States: An Update of Footprints

By

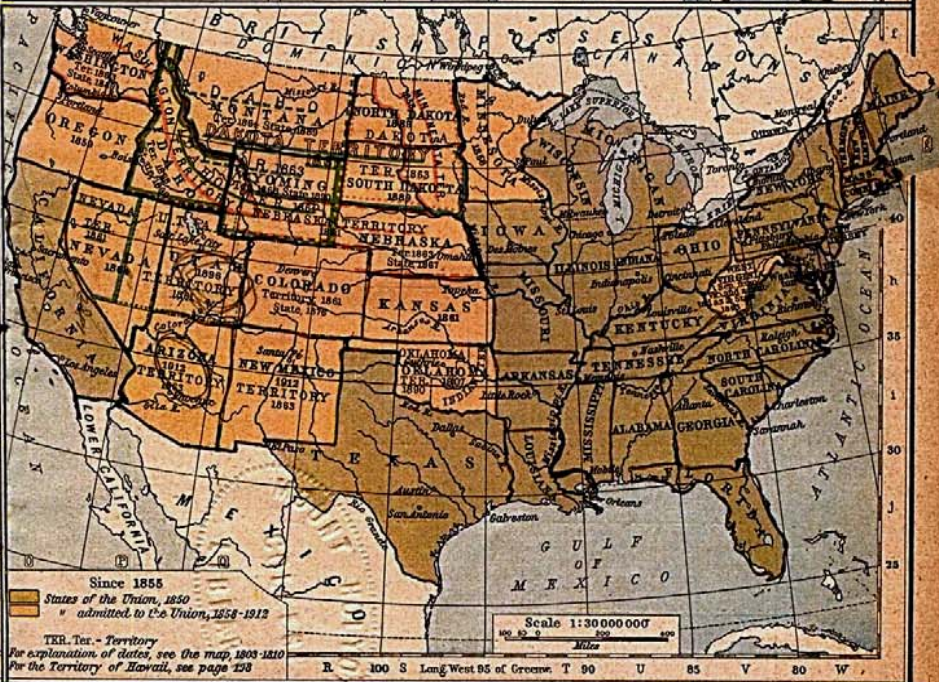
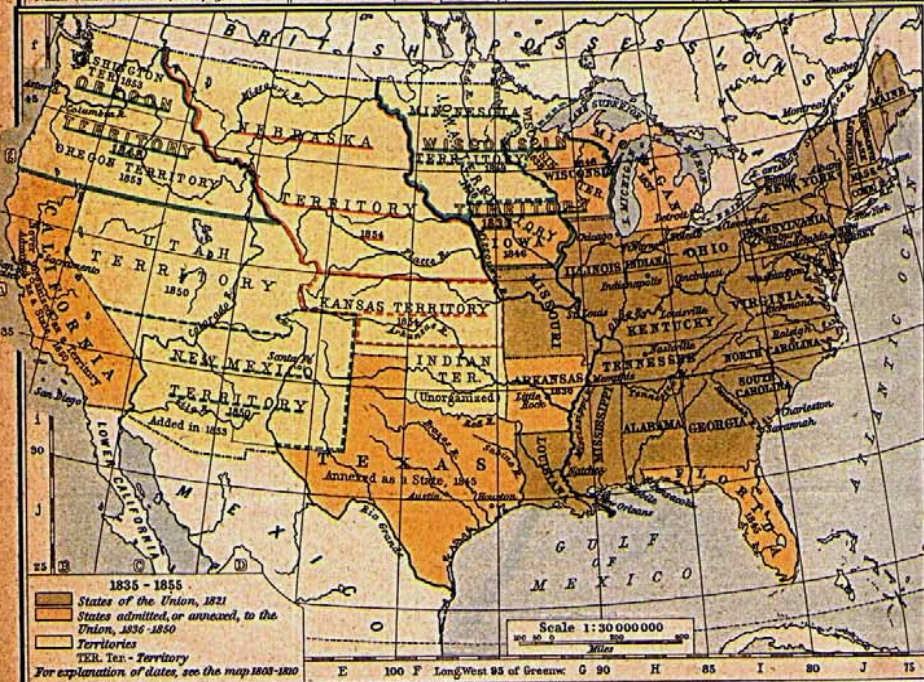
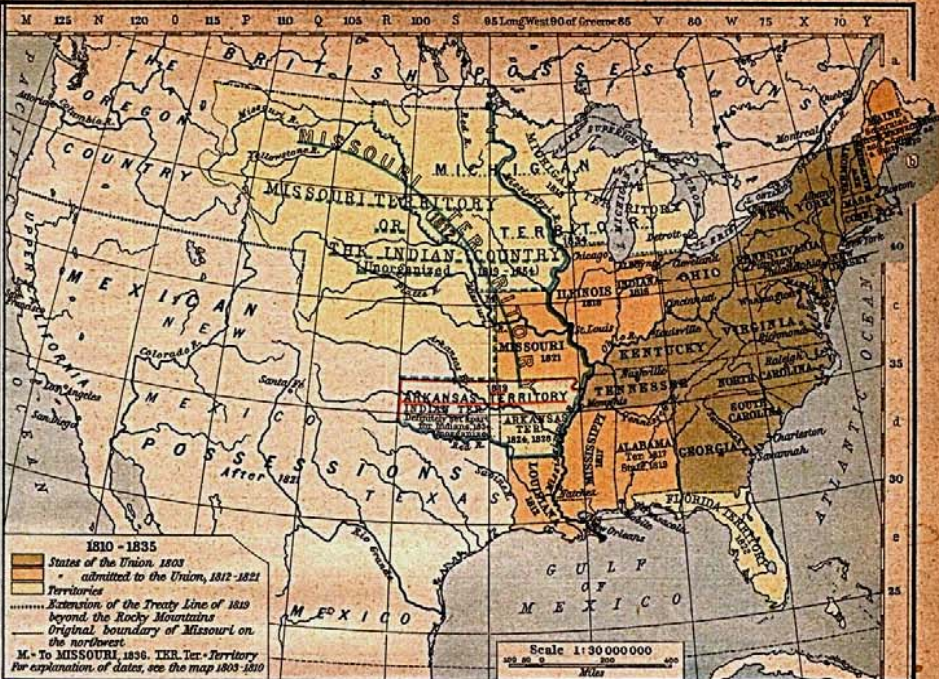
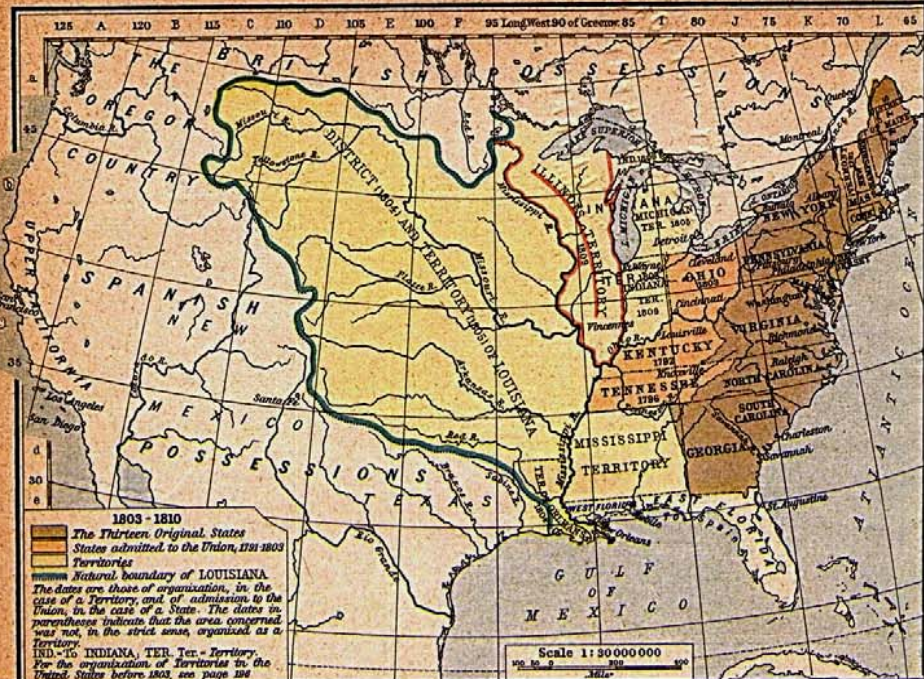
H. Ken Cordell¹, John C. Bergstrom², Carter L. Betz¹, and Gary T. Green²

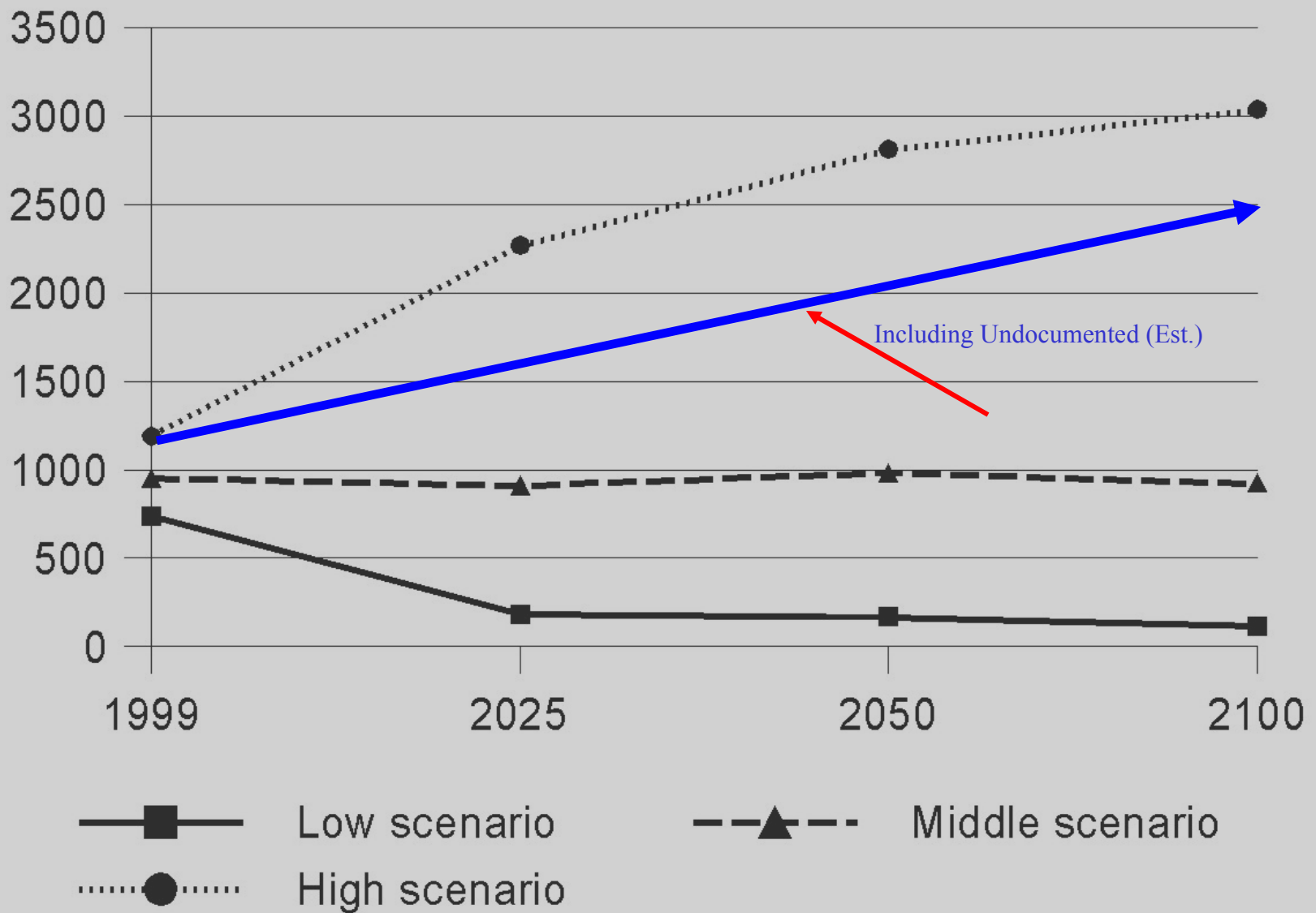
Introduction

This chapter is devoted to providing up-to-date summaries of a number of highly important social and economic trends that will play a role in the future of the United States and its natural resources. The trend topics covered include population growth, changing composition of the population, urban growth and sprawl, transition of rural lands, economic growth, consumer spending, and recreation demands. This chapter is essentially an abbreviated update of the book *Footprints on the Land* (Cordell & Overdevest, 2001). It is undertaken

¹Project Leader and Outdoor Recreation Planner respectively, USDA Forest Service, Southern Research Station, Athens, GA.

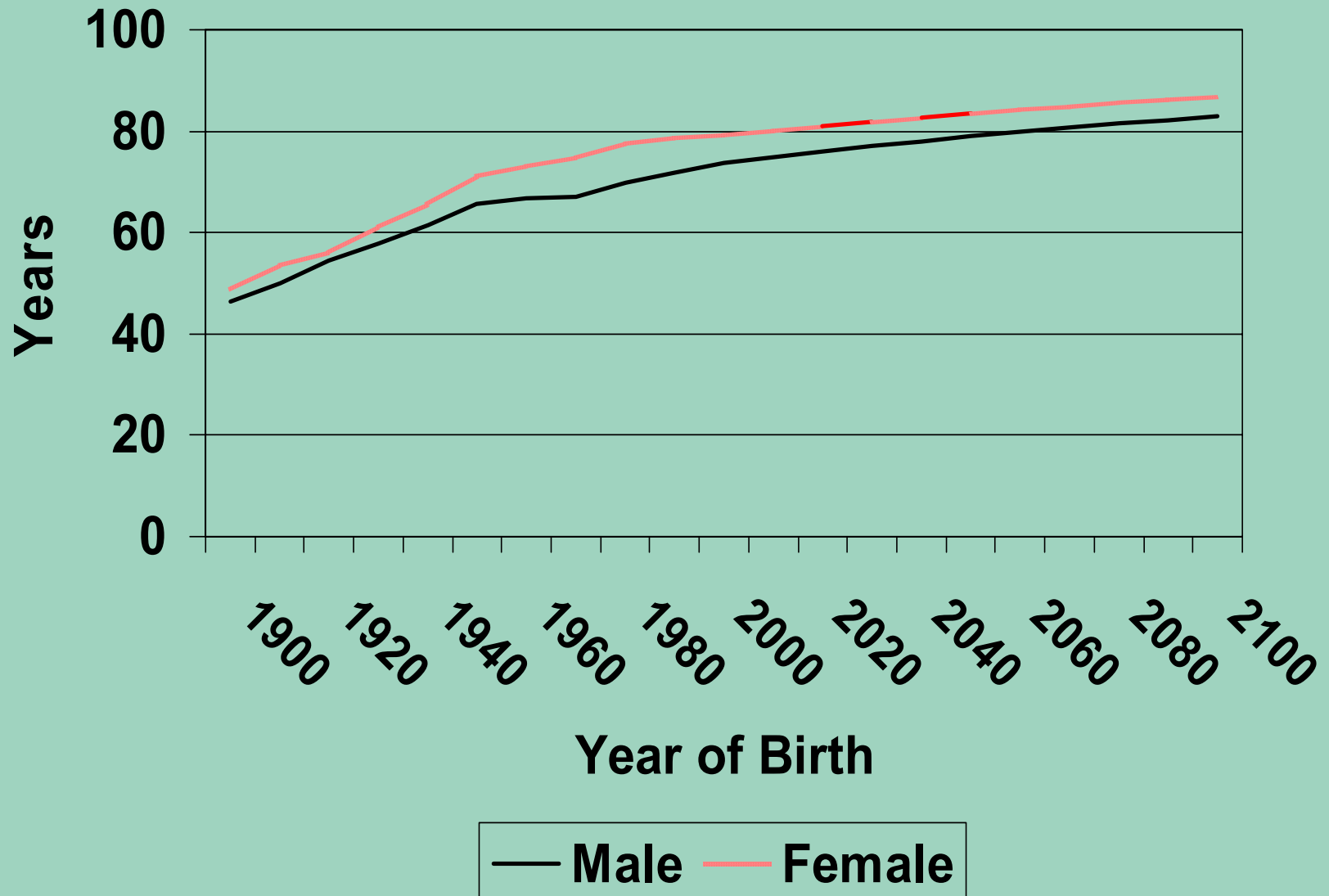
²Respectively, Professor, Agriculture & Applied Economics, and Assistant Research Scientist, Warnell School of Forest Resources, University of Georgia, Athens, GA.



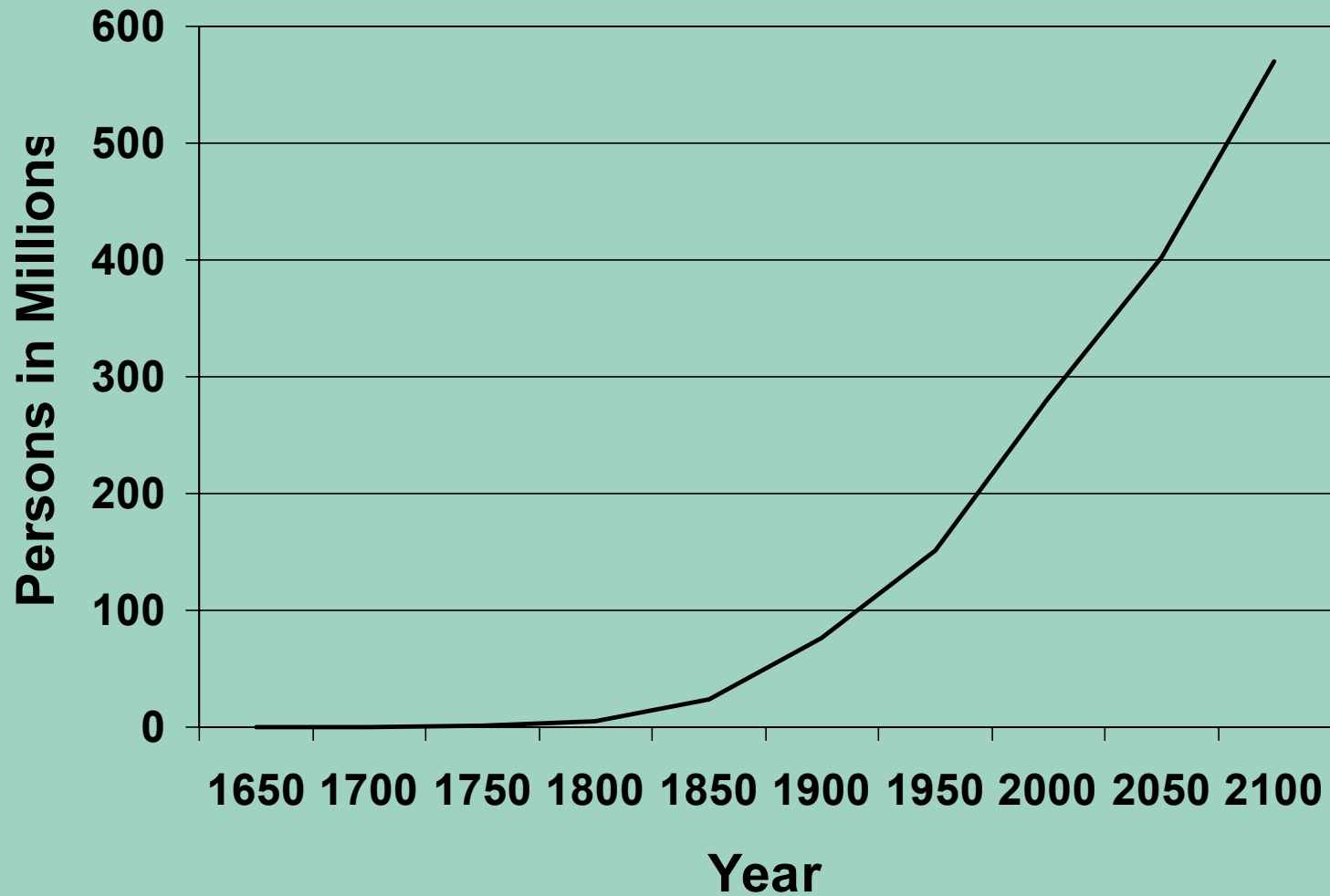


Projected net migration to the US, 1999-2100, under alternative low, middle, and high scenarios.

Life Expectancy



Historical and Projected Population in the U.S.



Historic and Projected Population by Ethnicity

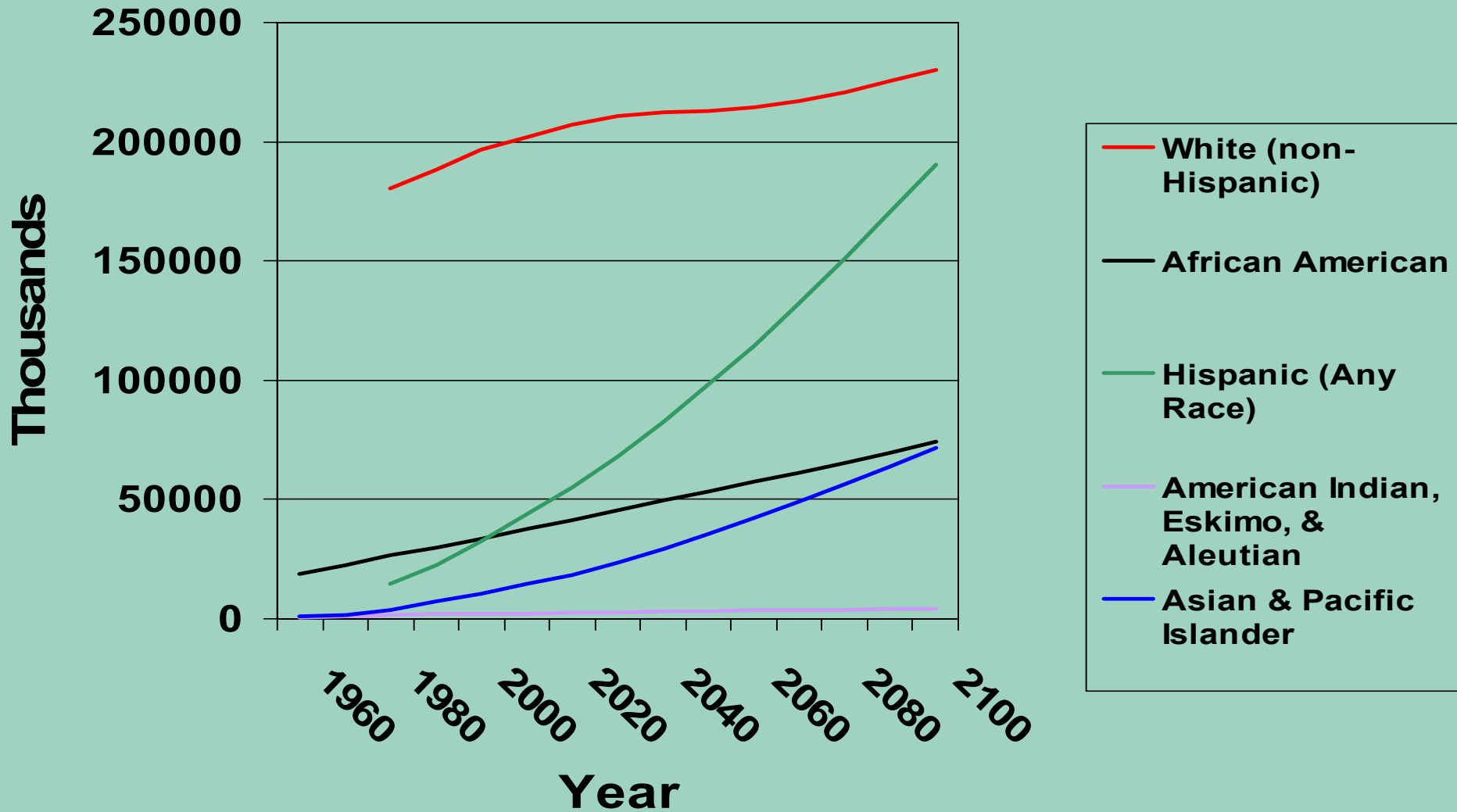
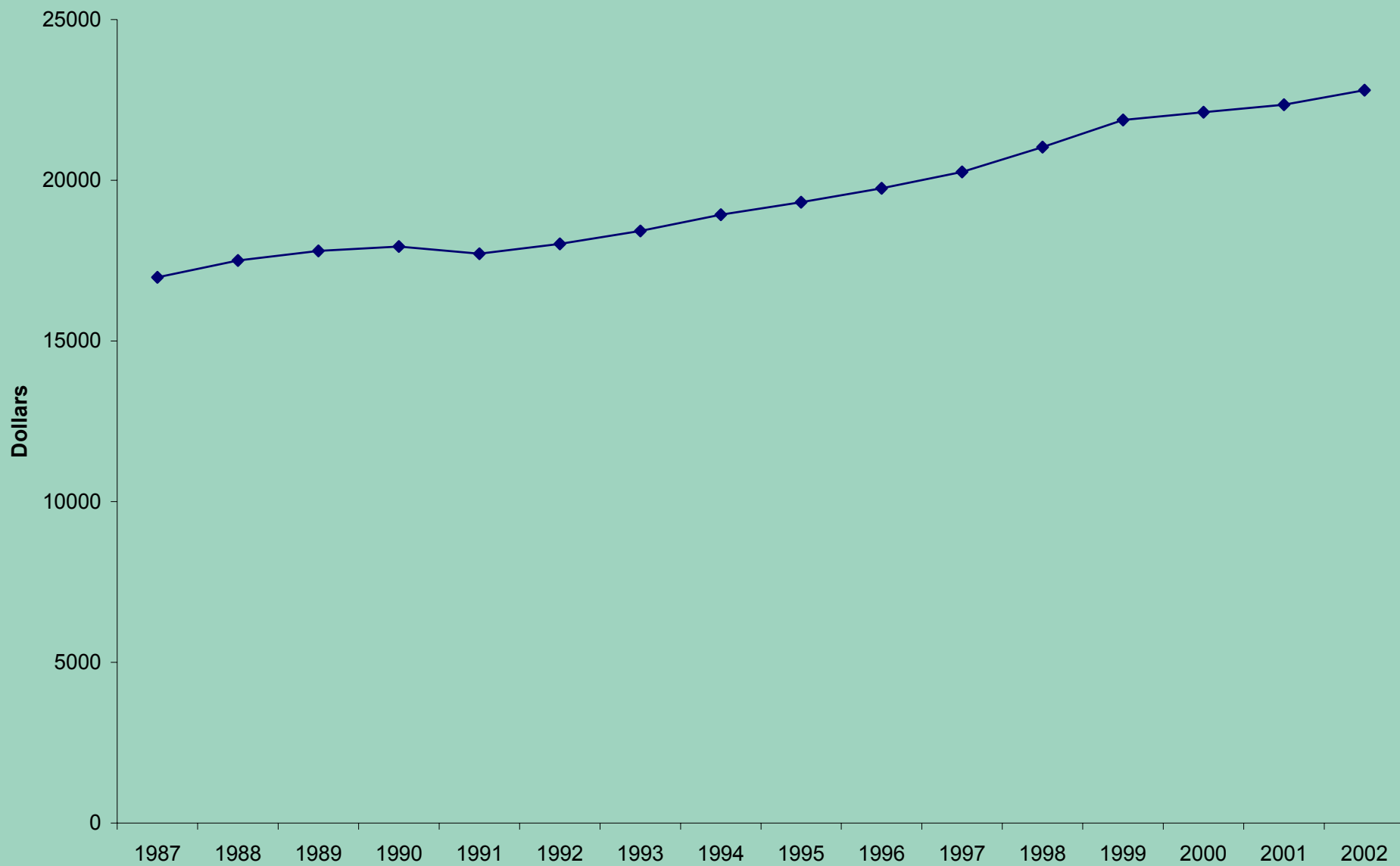
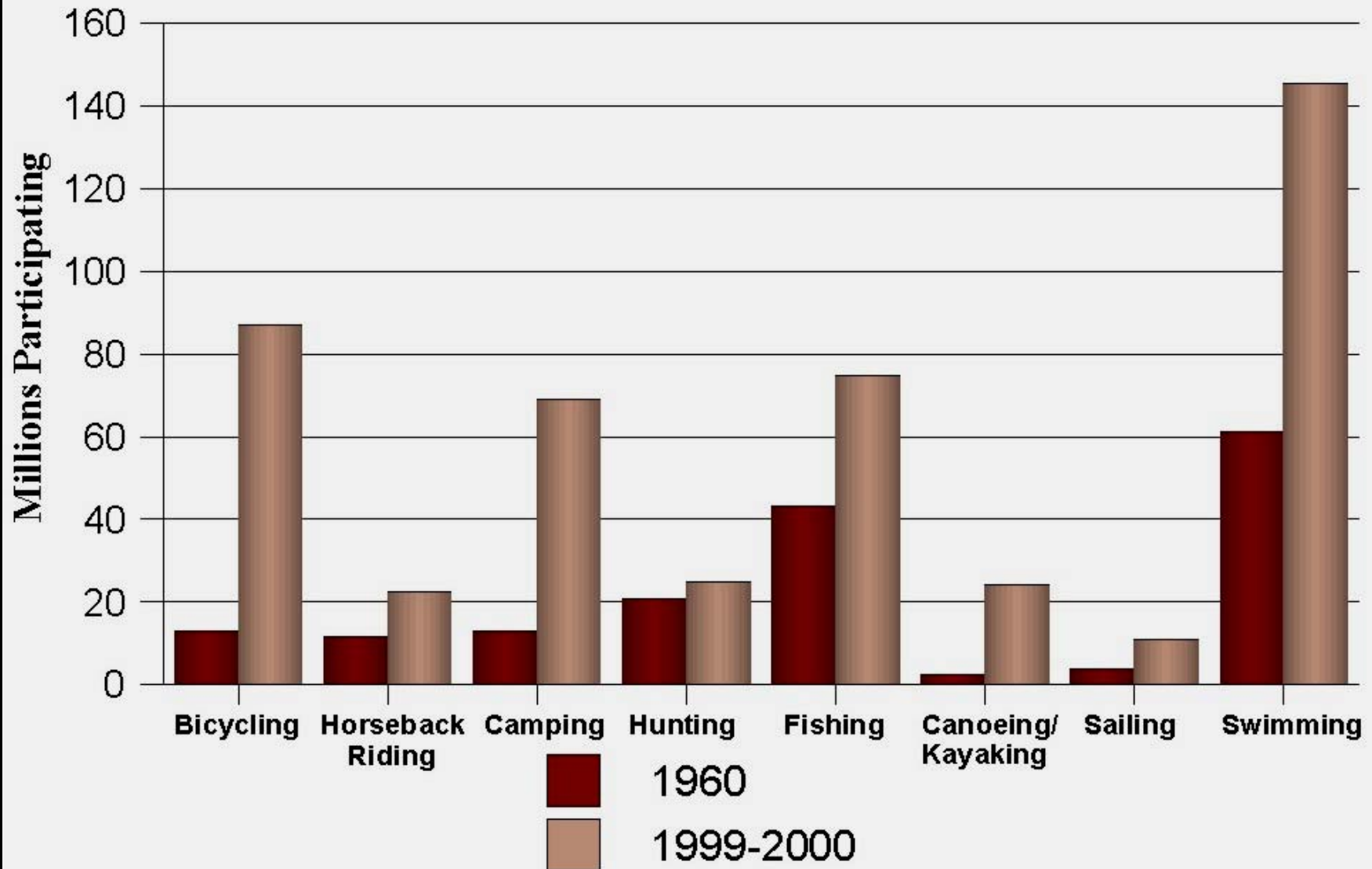


Figure 6. Real Per Capita Personal Consumption Expenditures Over Time



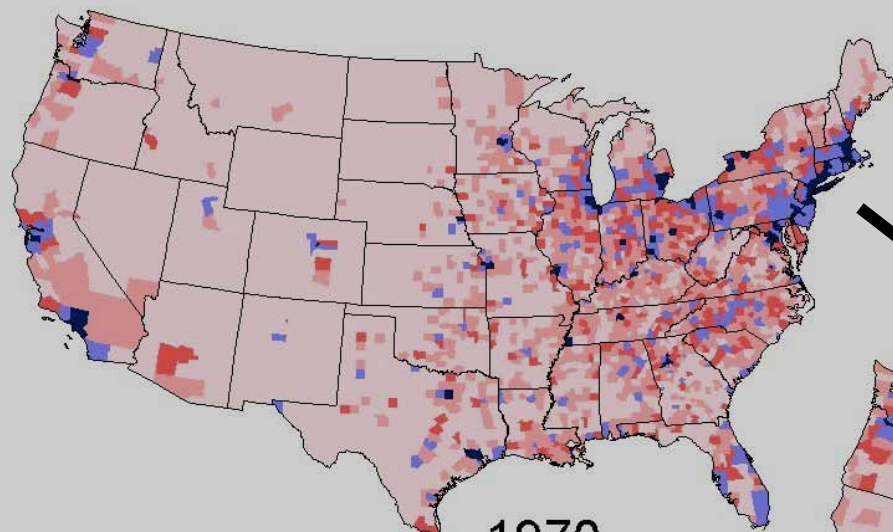
LONG TERM TRENDS SINCE 1960



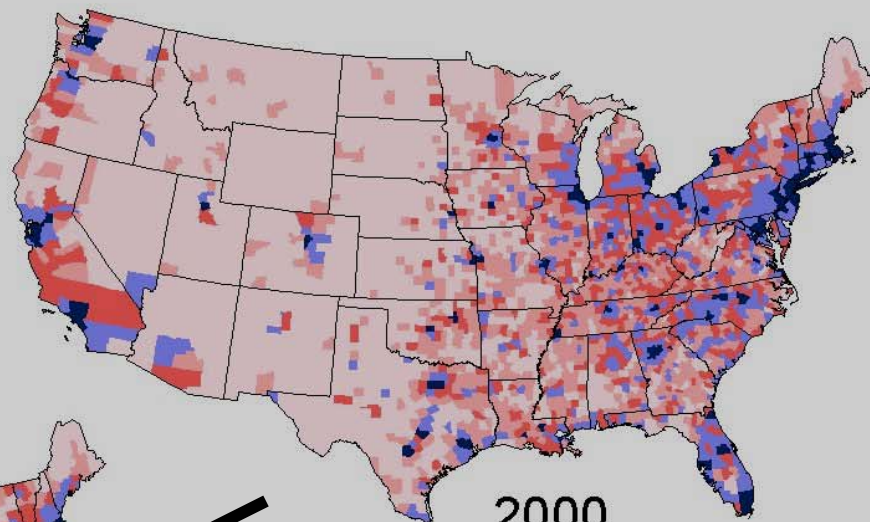
**Percentage Change in Metro Populations Inside and Outside
of Central Cities: 1990 to 1998**



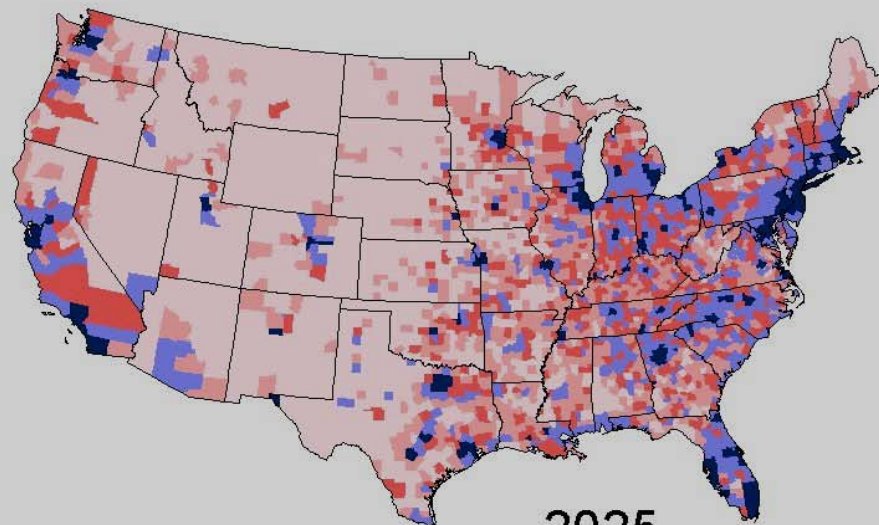
Density of Occupied Housing Units



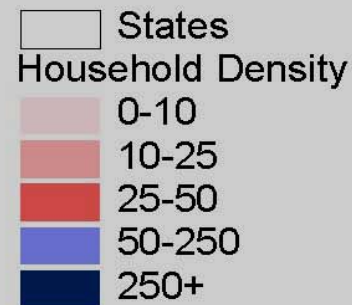
1970

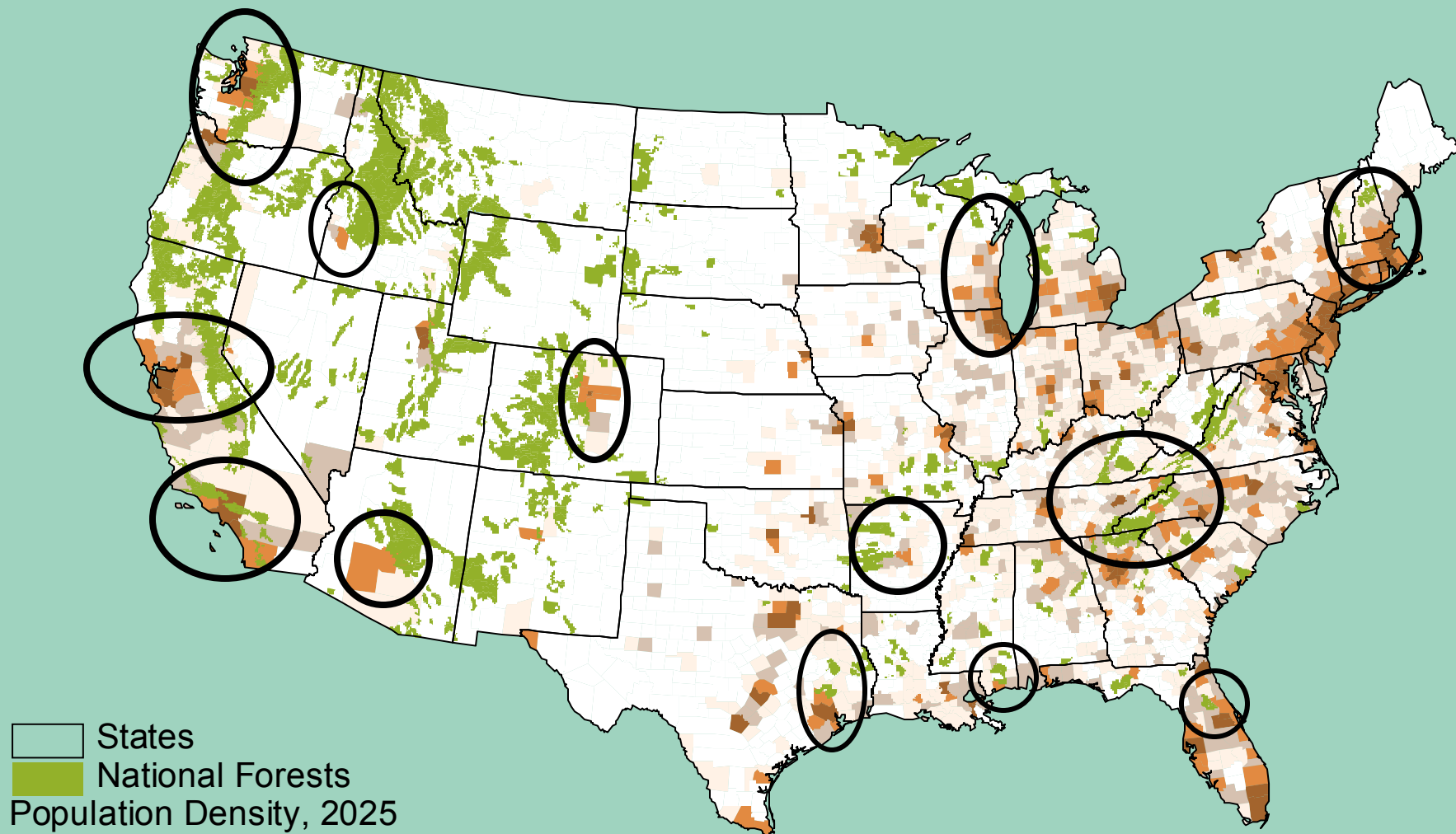


2000



2025





Spatial Relationship of NFs to Heavily Populated Counties 2025

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The Multiple Values of Wilderness



H. Ken Cordell
Principal Author

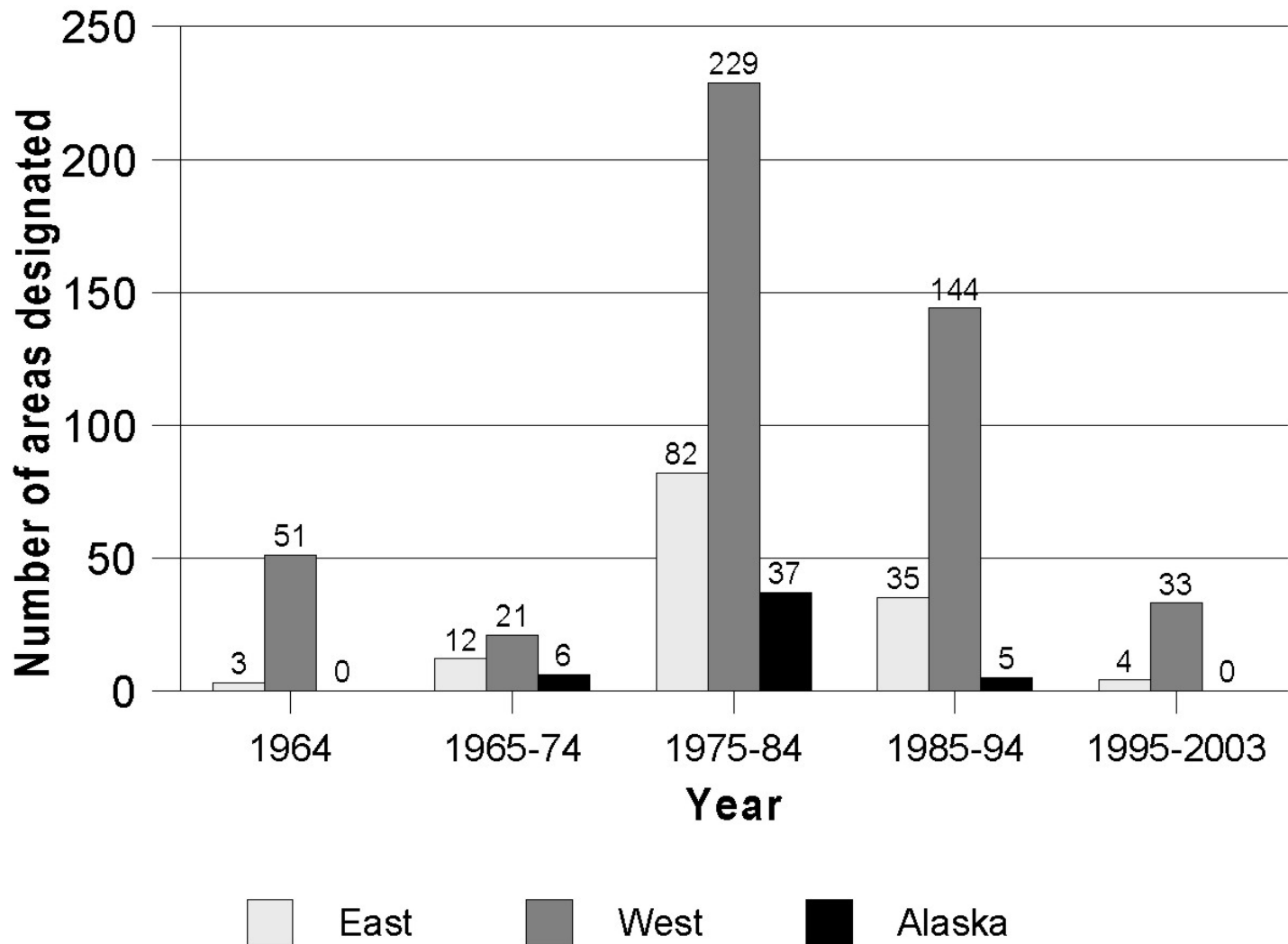
The Multiple Values of Wilderness

Cordell
Principal Author



VENTURE

Number of Wilderness areas designated in the East, West, and Alaska between 1964 and 2002

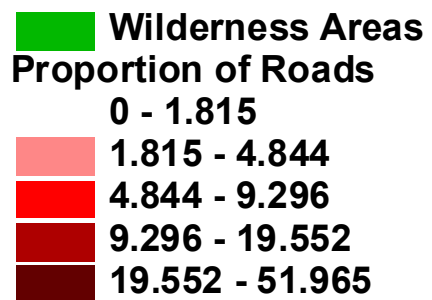
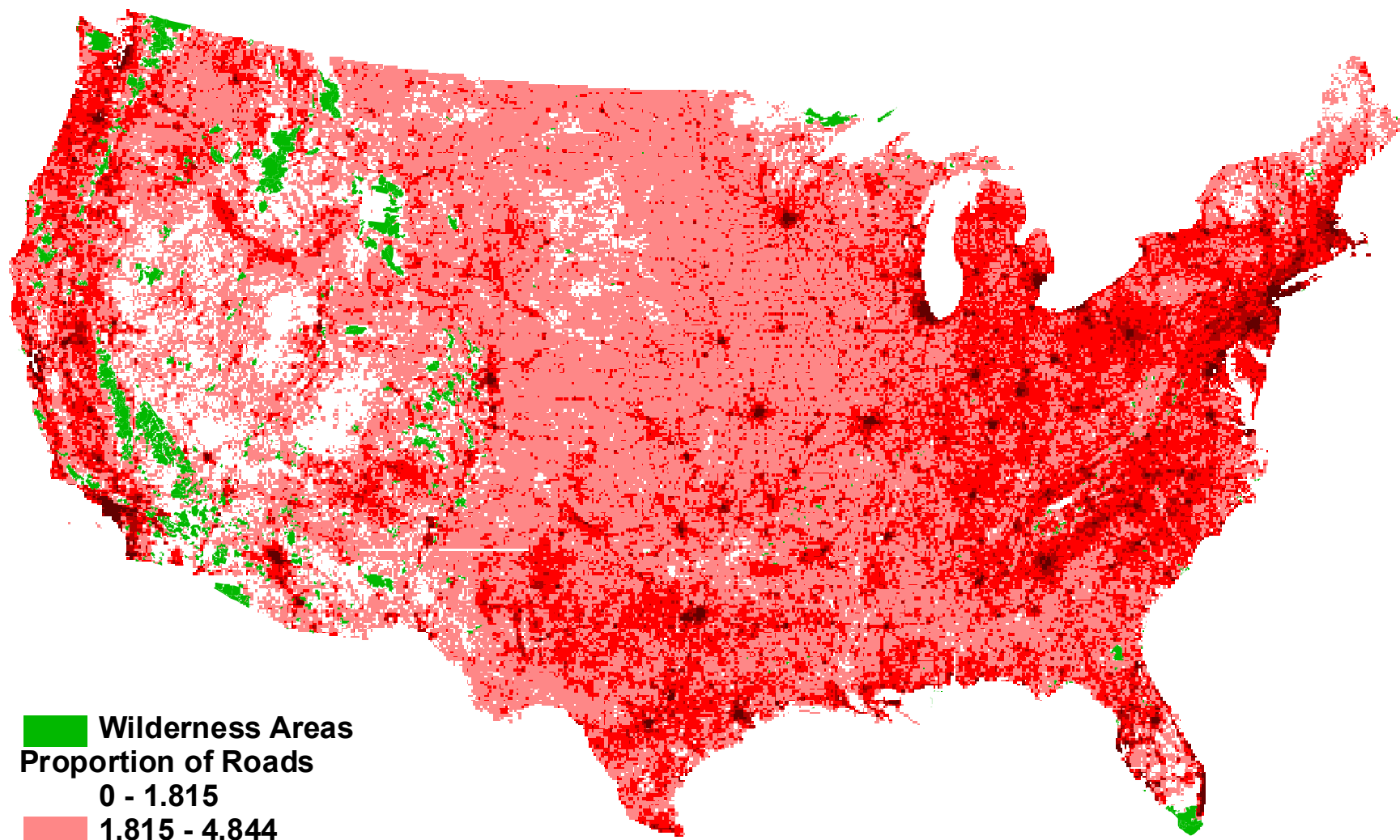


Number of Wilderness areas and acres in the 10 states having the most Wilderness

| State | Areas | Acres | Percentage of National Total Acres |
|-----------------------|------------|-------------------|------------------------------------|
| Alaska | 48 | 58,182,216 | 58.70 |
| California | 130 | 13,975,535 | 14.10 |
| Arizona | 90 | 4,518,442 | 4.56 |
| Washington | 30 | 4,324,182 | 4.36 |
| Idaho | 7 | 4,015,061 | 4.05 |
| Montana | 15 | 3,442,416 | 3.47 |
| Colorado | 40 | 3,171,685 | 3.20 |
| Wyoming | 15 | 3,111,132 | 3.14 |
| Oregon | 40 | 2,258,238 | 2.28 |
| Nevada | 42 | 2,123,343 | 2.14 |
| National Total | 457 | 99,122,250 | 100.00 |

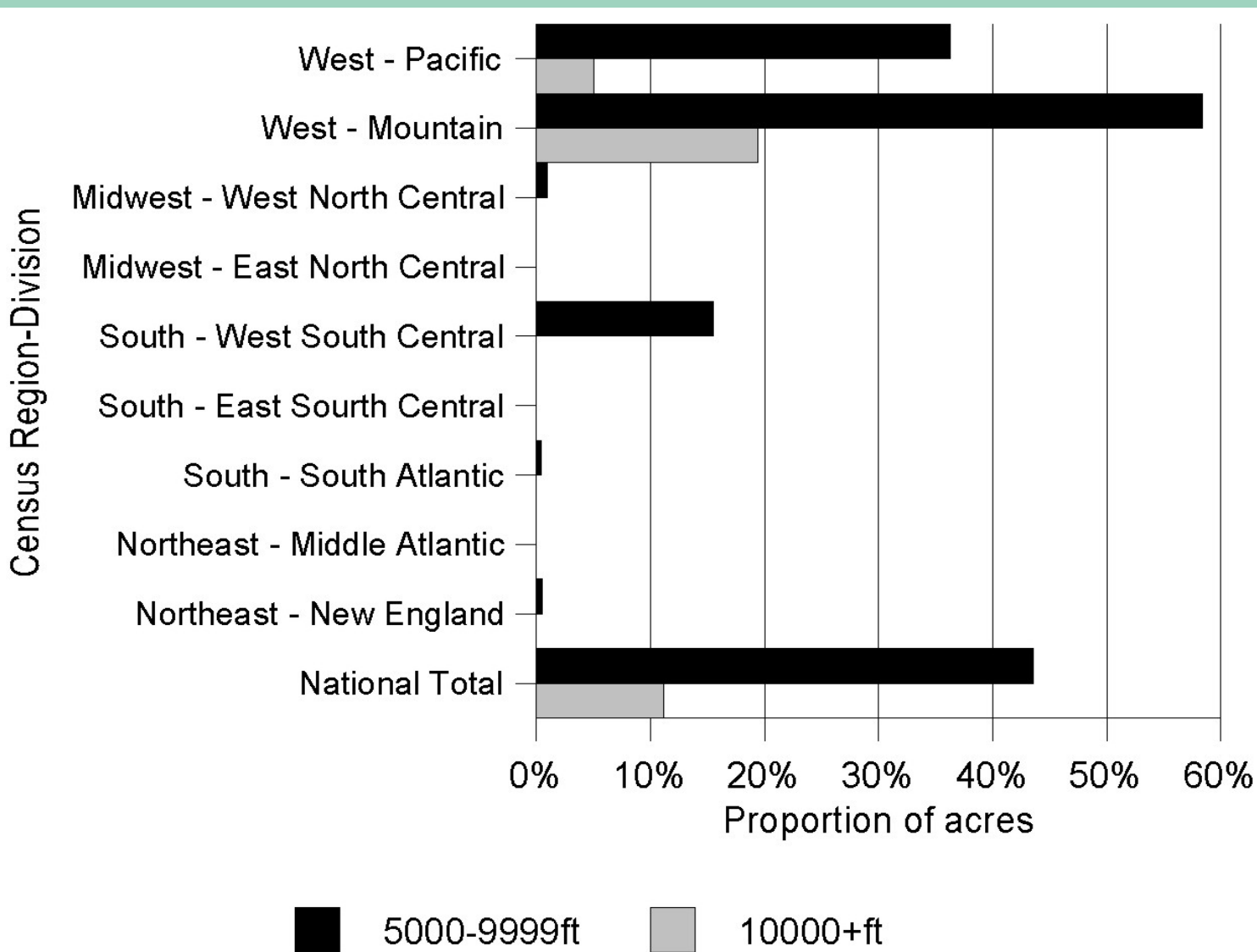
Number of people living within 25, 50, 100, 200, and 400 miles of Wilderness

| Distance | Sum of Population | Percent of Population |
|-----------------|--------------------------|------------------------------|
| 25 miles | 47,495,997 | 16.8 |
| 50 miles | 114,497,257 | 40.6 |
| 100 miles | 195,745,452 | 69.4 |
| 200 miles | 262,151,985 | 93.0 |
| 400 miles | 281,918,792 | 100.0 |



Density of roads relative to Wilderness

Percentage of total Wilderness area at elevations above 5,000 feet by census division and nationally



National

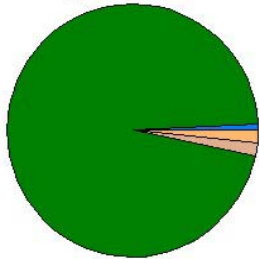
| Precipitation | Areas | Acres | Percent of Total |
|---------------|-------|------------|------------------|
| 0-15 in. | 146 | 12,920,179 | 27.55 |
| 16-30 in. | 138 | 9,517,039 | 20.29 |
| 31-40 in. | 101 | 8,777,388 | 18.72 |
| 41-60 in. | 185 | 9,817,244 | 20.93 |
| 61-90 in. | 63 | 3,533,052 | 7.53 |
| 100+ in. | 20 | 2,331,883 | 4.97 |

Census Regions and Divisions of the United States

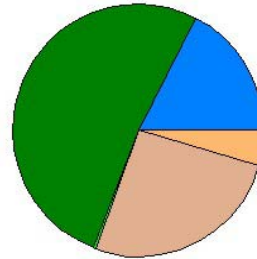


The proportion of Wilderness areas in each of 7 land cover classes by census division

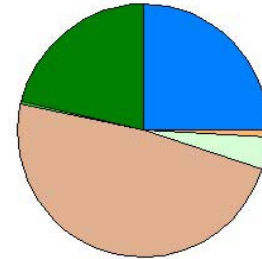
New England-Northeast



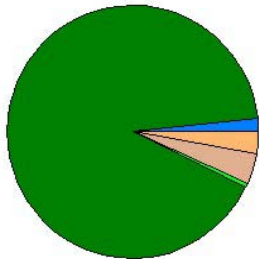
Middle Atlantic-Northeast



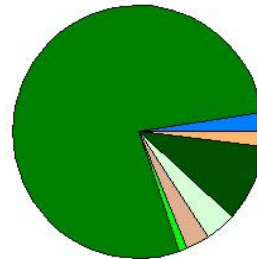
South Atlantic-South



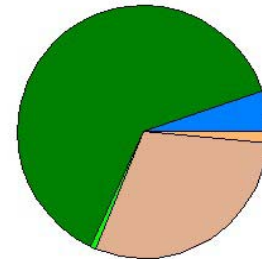
East South Central-South



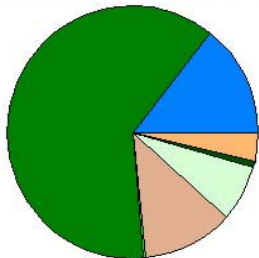
West South Central-South



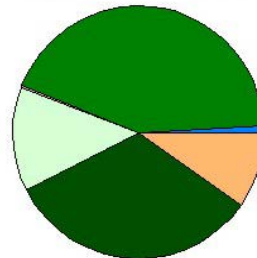
East North Central-Midwest



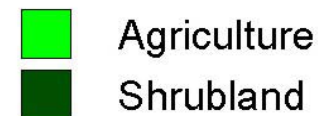
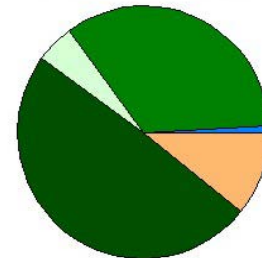
West North Central-Midwest



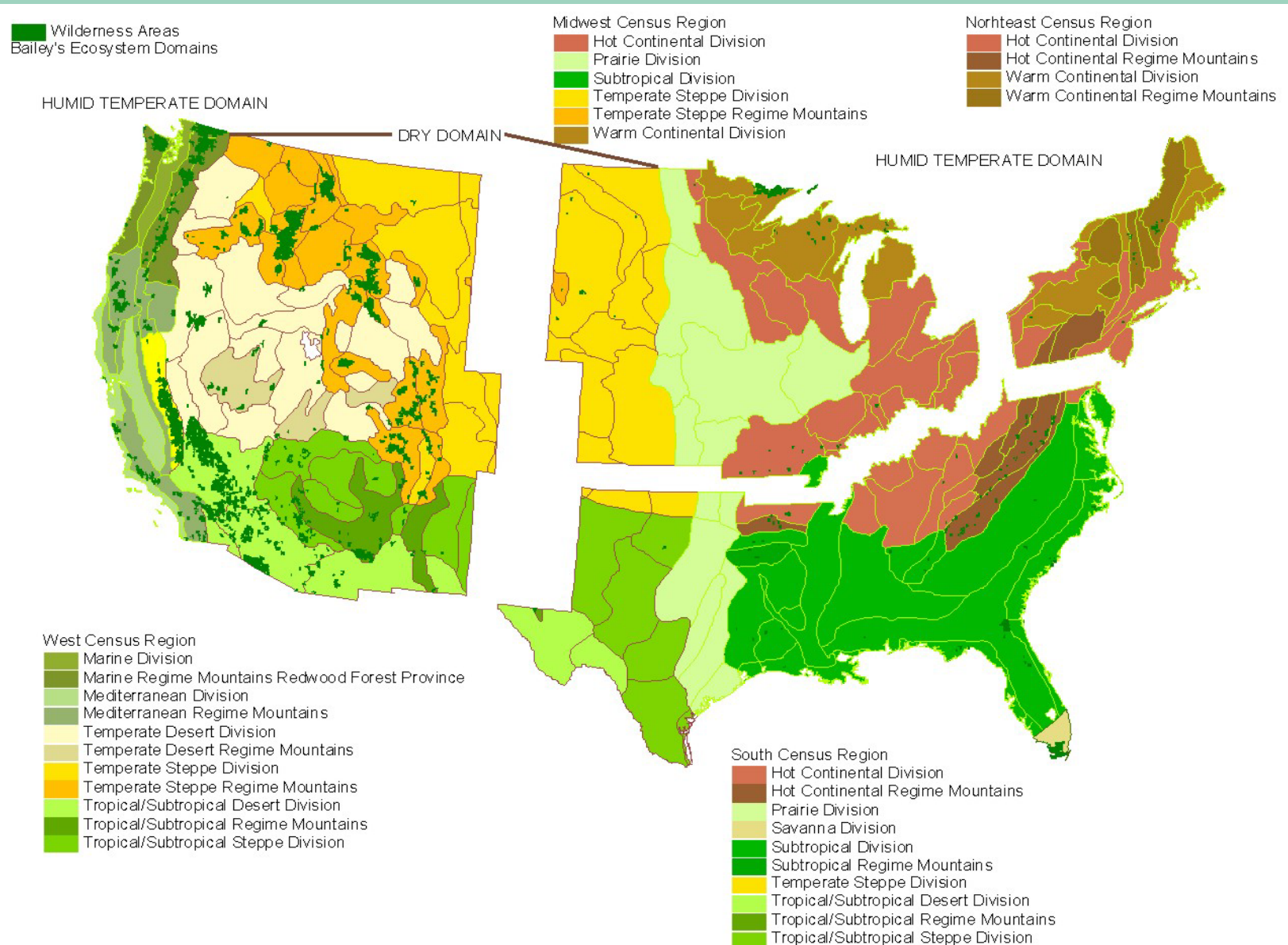
Mountain-West



Pacific-West



Location of designated wilderness areas relative to type of ecosystem at Bailey's Domain and Division level for each Census Region



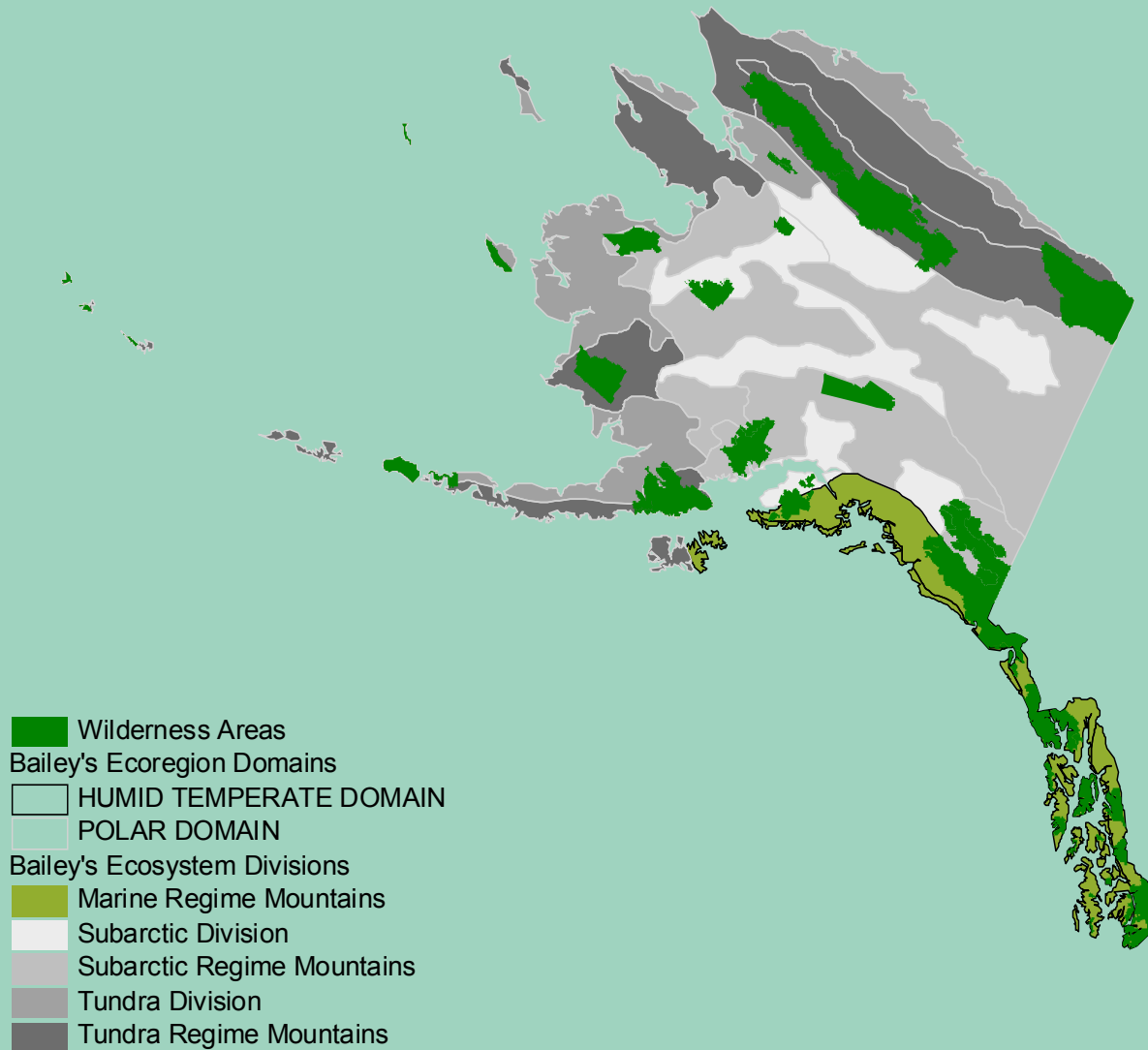
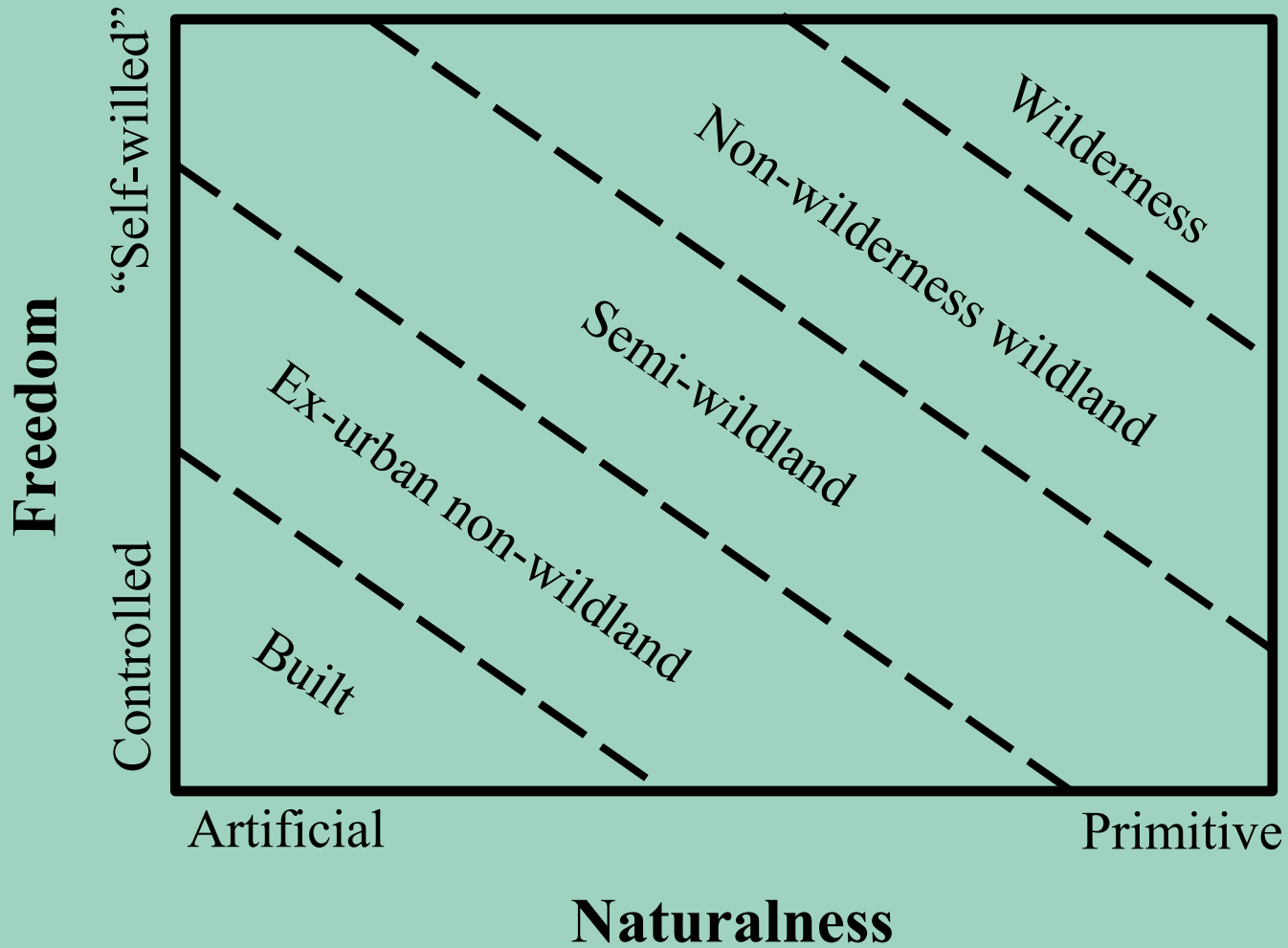
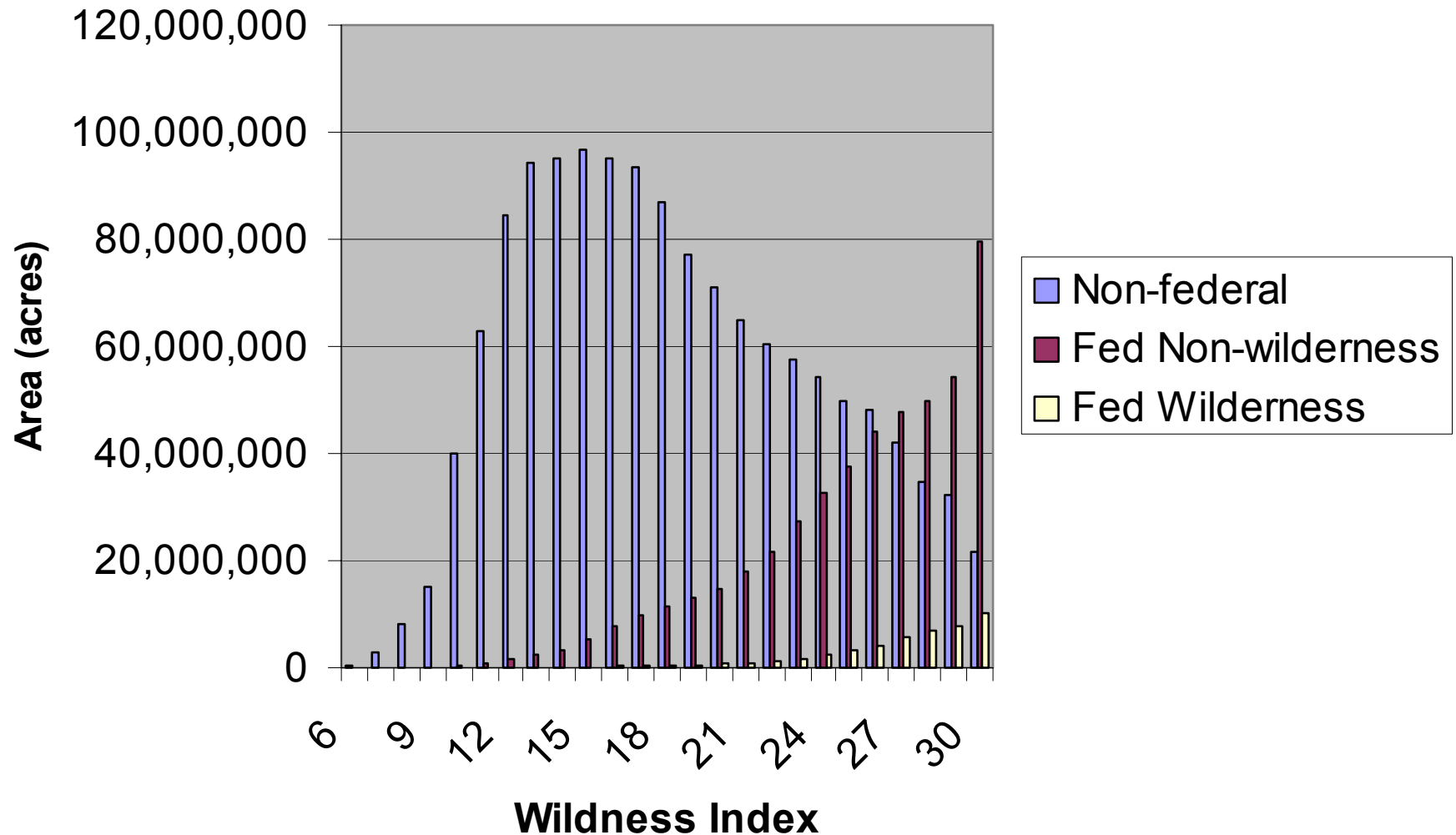


Figure 1. Wilderness Areas in Alaska in Relation to Bailey's Ecoregions at Domain and Division
http://www.fs.fed.us/institute/ftp/maps/na_regns.shp.zip

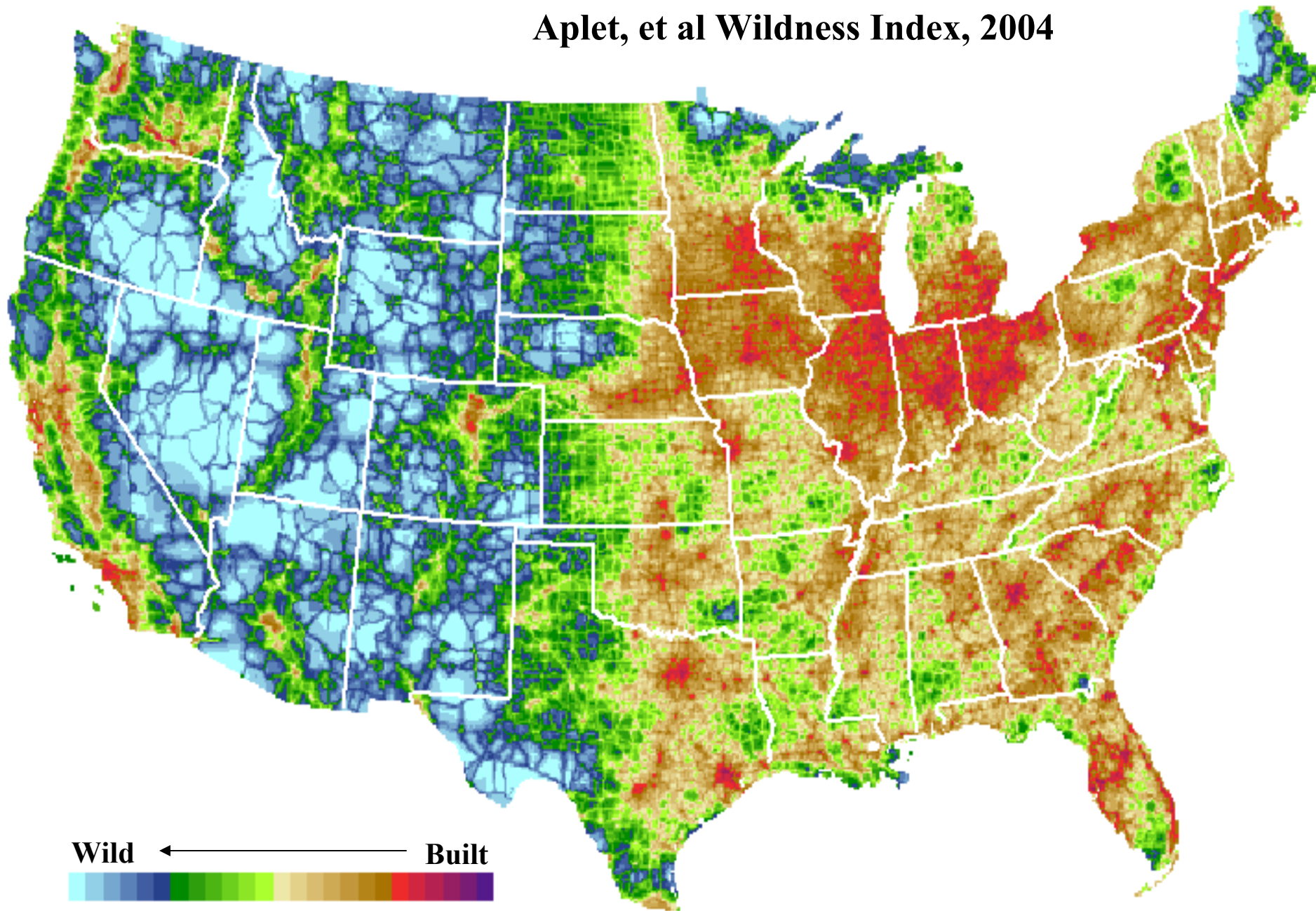
The Wildland Continuum



**Fig. 2. Distribution of Wildness by Land Classification -
Contiguous U.S.**



Aplet, et al Wildness Index, 2004



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An Organizing Framework for Wilderness Values

| Basic Functional Connections | Measurement Accounts or Categories | Specific Types of Measures or Indicators |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Wilderness Values | Social | Psychological Sociological Anthropological |
| | Economic | Active Use Value Passive Use Value Economic Impacts |
| | Ecologic | Human Life Support Value Animal and Plant Life Support Value |
| | Ethical | Instrumental Value Intrinsic Value |
| Wilderness Services | Animal and Plant Habitat; Carbon Sequestration; Subsistence Living; Cultural Preservation; Historic Preservation; Scientific Discovery; Educational Development; Personal Physical Health and Growth; Personal Emotional Health and Growth; Personal Spiritual Health and Growth; Community Health and Quality of Life | |
| Wilderness Functions | Preservation of Natural and Wild Places; Recreational and Experiential Setting; Ecosystem and Biodiversity Preserve | |
| Wilderness Attributes | Geographic; Geologic; Hydrologic; Atmospheric; Biologic; Naturalness; Wildness; Constructed | |

| Basic Functional Connection | Measurement Accounts or Categories | Examples of Measures or Indicators |
|------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------|
| Wilderness Values | Social | Developmental/Health Value Social Identify Value Spiritual Value |
| | Economic | Active Use Value Passive Use Value Economic Impacts |
| | Ecologic | Human Life Support Value Animal and Plant Life Support Value |
| | Ethical | Instrumental Value Intrinsic Value |

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Humans Were Meant to Rule Over Nature

29%

14%
Strongly Agree

15%
Somewhat Agree

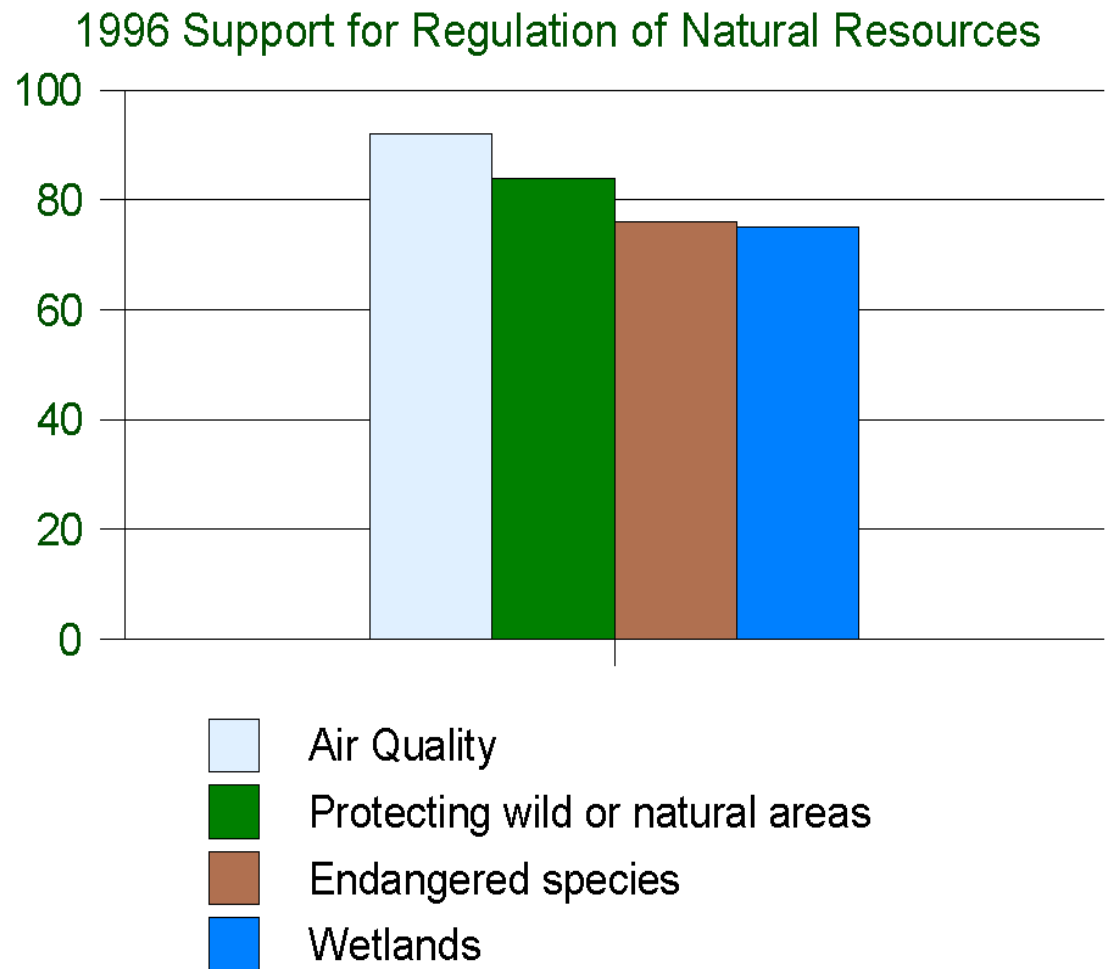
61%

(6% Neutral)

19%
Somewhat Disagree

42%
Strongly Disagree

Percentage
of Americans
Reporting
Regulation of
Natural
Resources is
"Just the
Right Amount"
or has
"Not Gone
Far Enough."



Source: Dujack, 1997.

Public Views on Wilderness

- Nationally about 1/2 of American's 16+ report knowing about the NWPS
- Only 4.4% feel we have put too many acres into the NWPS:
 - Not enough 52.6%
 - About right 26.9%
 - Too much 4.4%
 - Not sure 15.4%

American residents' attitude toward the amount of Wilderness land in the USDA National Forest system

| | Percent of Respondents |
|-----------------------|------------------------|
| Too little/Not enough | 61 |
| About right | 24 |
| Too much | 8 |
| Not sure/Don't know | 7 |

What Americans in 2002 Value about Wilderness

| <u>Wilderness Value</u> | <u>Percentage Saying It Is</u> | |
|-------------------------------------------|---------------------------------------|---------------------------------------------|
| | <u>Extremely Important</u> | <u>Slightly or Not Important</u> |
| Protecting air quality | 58.4 | 1.5 |
| Protecting water quality | 55.9 | 1.5 |
| Protecting wildlife habitat | 52.7 | 3.1 |
| Protecting endangered species | 49.8 | 5.0 |
| Legacy for future generations | 49.1 | 3.1 |
| Preserving unique ecosystems and genetics | 44.3 | 5.1 |
| Future option to visit | 37.5 | 7.1 |
| Just knowing it is preserved | 36.9 | 6.4 |
| Providing scenic beauty | 35.4 | 5.5 |
| Providing recreation opportunities | 27.8 | 7.2 |
| Providing spiritual inspiration | 25.9 | 16.7 |
| Undisturbed area for scientific study | 23.9 | 11.6 |
| Providing income for tourism industry | 9.7 | 33.5 |

Trends in Public Values of Wilderness

Very or extremely Important (%)

| Wilderness value | 1994 | 2002 | Change |
|---------------------------------|-------------|-------------|---------------|
| Protecting water quality | 78.9 | 93.1 | 14.2 |
| Protection of wildlife habitat | 78.6 | 87.8 | 9.2 |
| Protecting air quality | 78.0 | 92.3 | 14.3 |
| For future generations | 76.9 | 87.0 | 10.1 |
| Protection for endangered spp | 73.7 | 82.7 | 9.0 |
| Preserving ecosystems | 66.5 | 80.0 | 13.5 |
| Scenic beauty | 59.7 | 74.0 | 14.3 |
| Future option to visit | 59.4 | 75.1 | 15.7 |
| Just knowing it exists | 56.1 | 74.6 | 18.5 |
| For scientific study | 46.3 | 57.5 | 11.2 |
| Recreation opportunities | 48.9 | 64.9 | 16.0 |
| Providing spiritual inspiration | 43.2 | 56.5 | 13.3 |
| Income for tourism industry | 22.8 | 29.7 | 6.9 |

In International Journal of Wilderness Research last year

Summation

There are three underlying dimensions of Wilderness values that the above public surveying has revealed. In order, by percentage of Americans saying they are extremely important, they are:

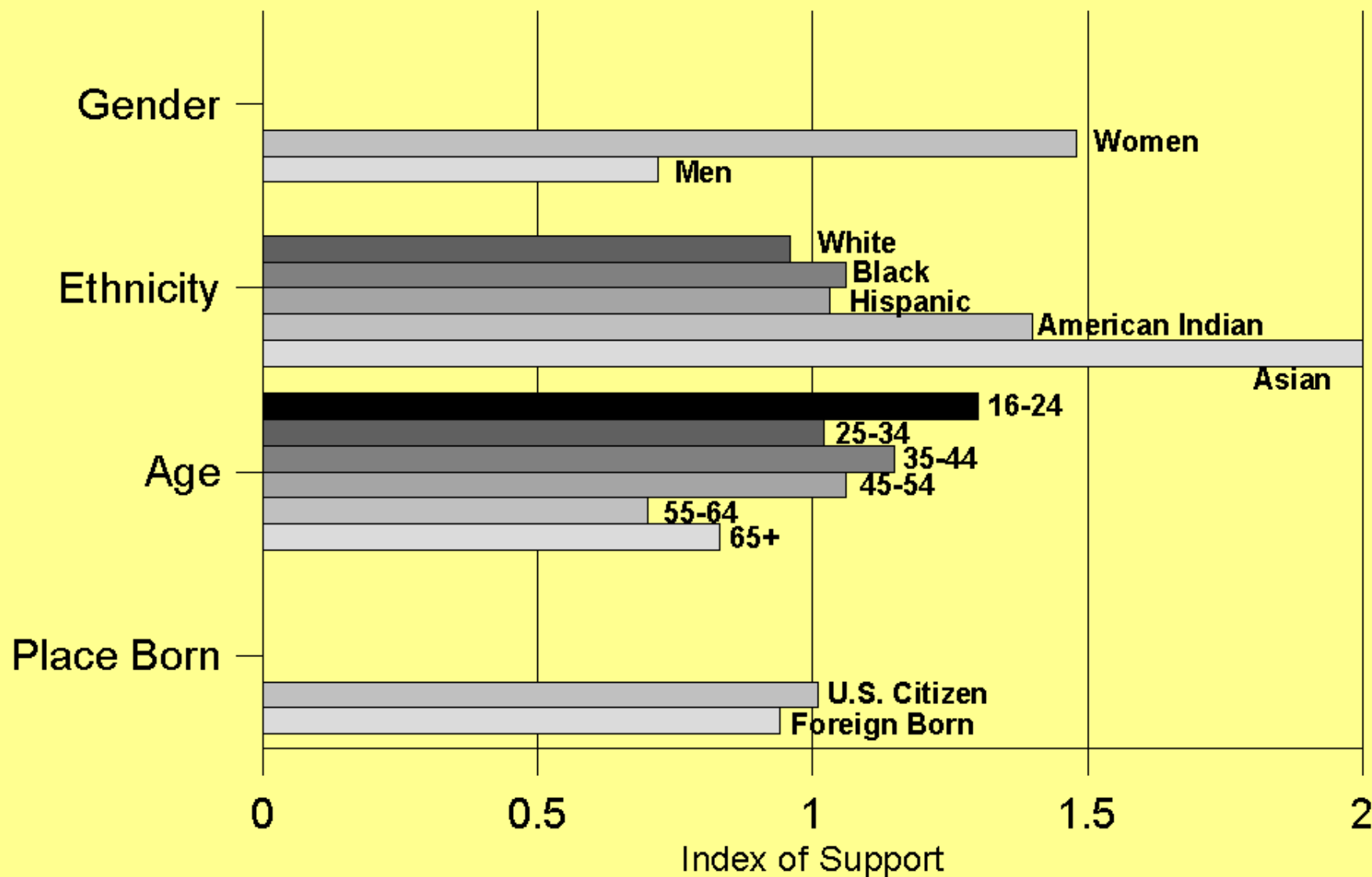
- 1. Ecological services, especially clean air and water for humans and other species, on and off site**
- 2. Ecosystem protection, including wildlife habitat, endangered species and rare and unique species**
- 3. Amenities for human appreciation and use, including wildlands for future generations, current and future options for recreation, scenery, spiritual inspiration, scientific study, and a draw for tourism**

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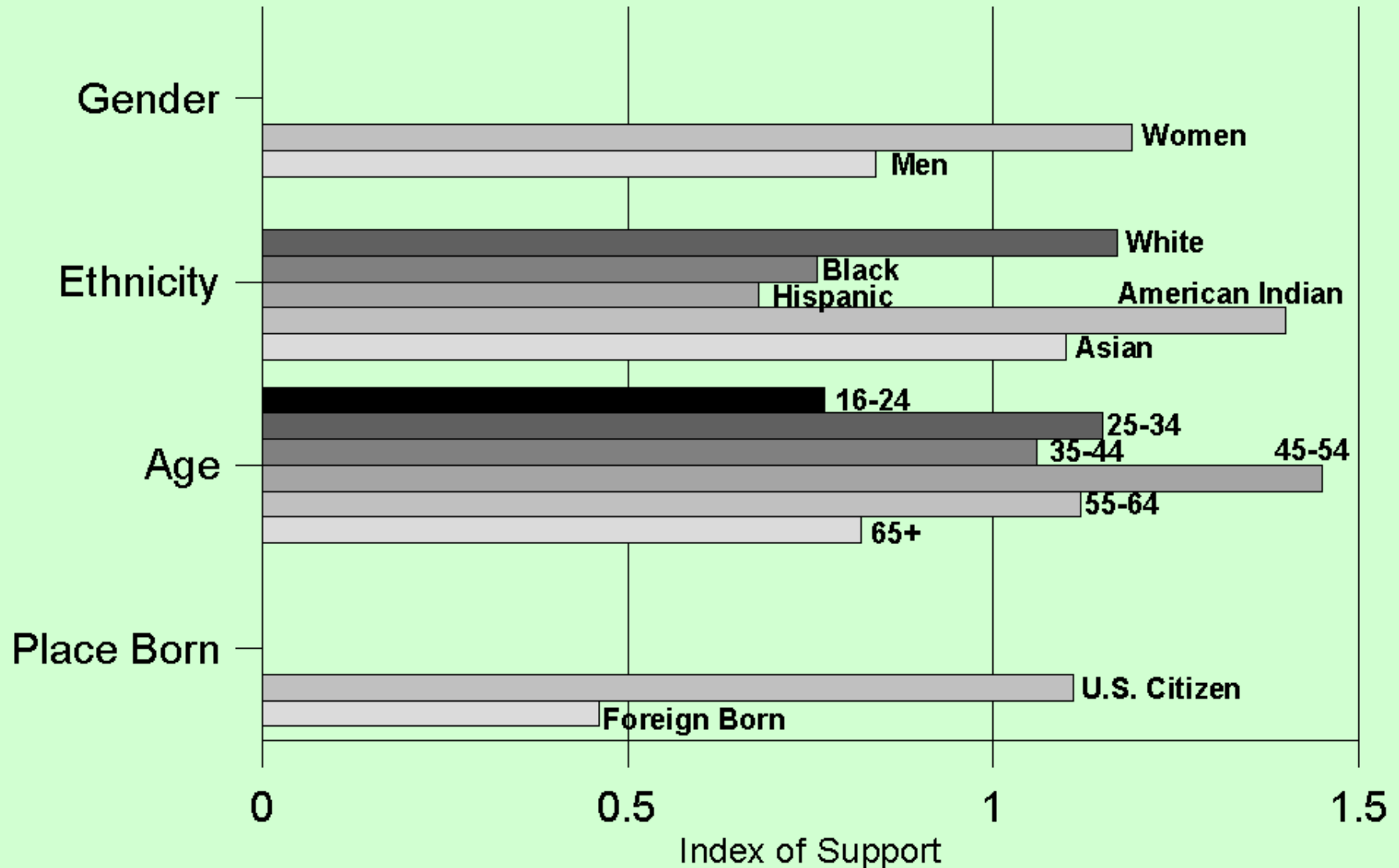
The Most Important Benefits of Wilderness

Protecting air quality



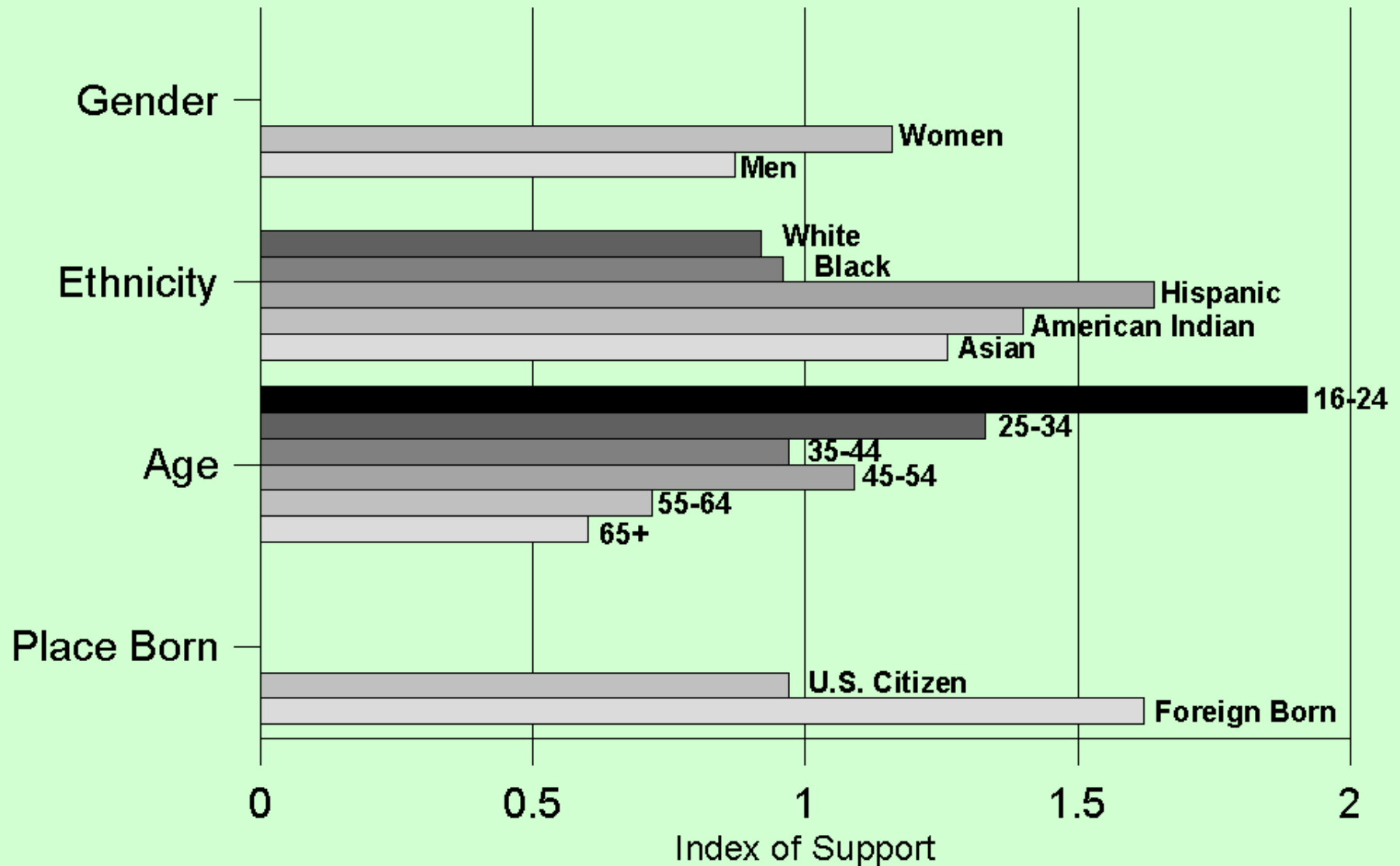
The Most Important Benefits of Wilderness

Protecting Water Quality



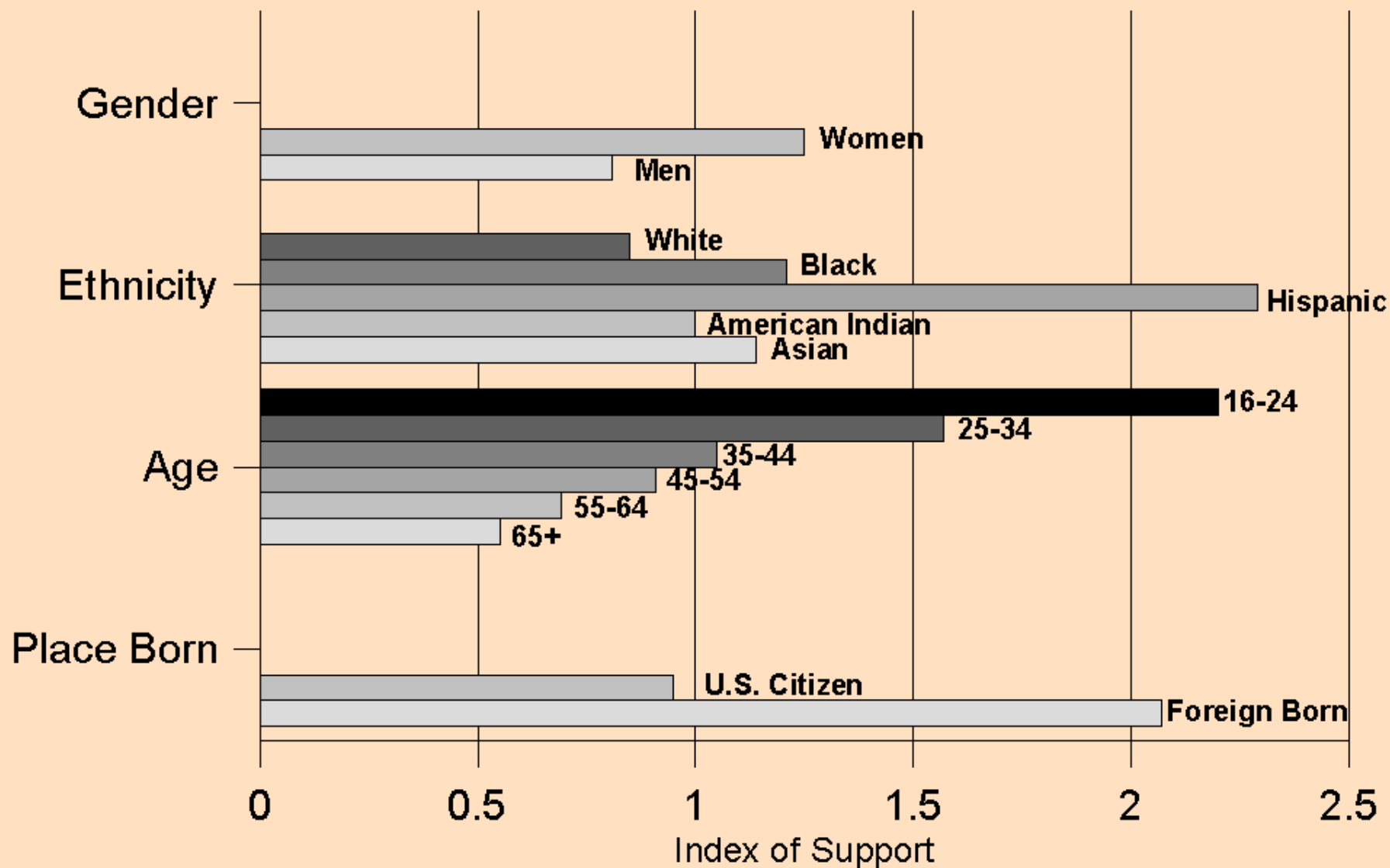
The Most Important Benefits of Wilderness

Protecting wildlife habitat



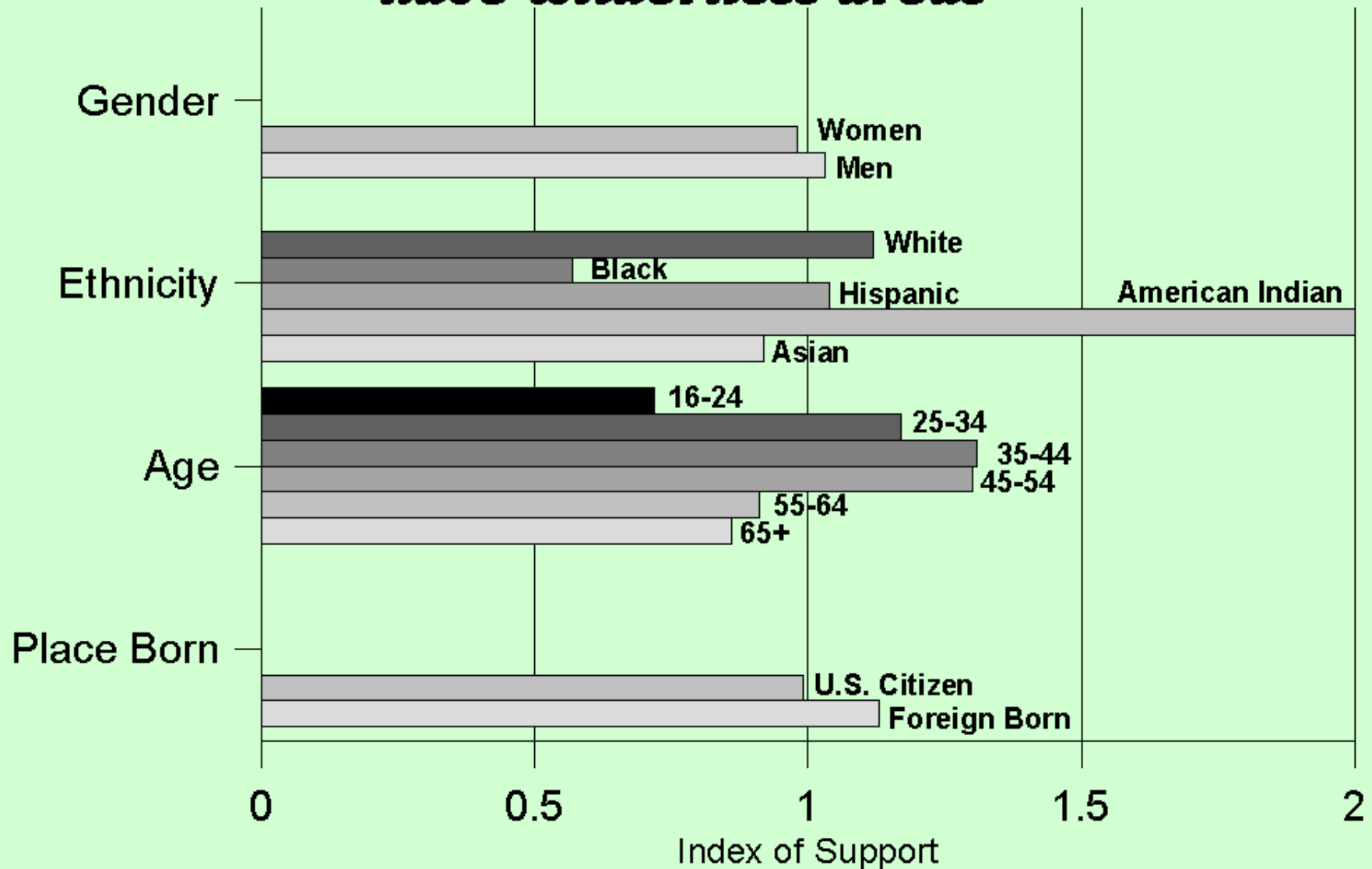
The Most Important Benefits of Wilderness

Protecting rare and endangered species



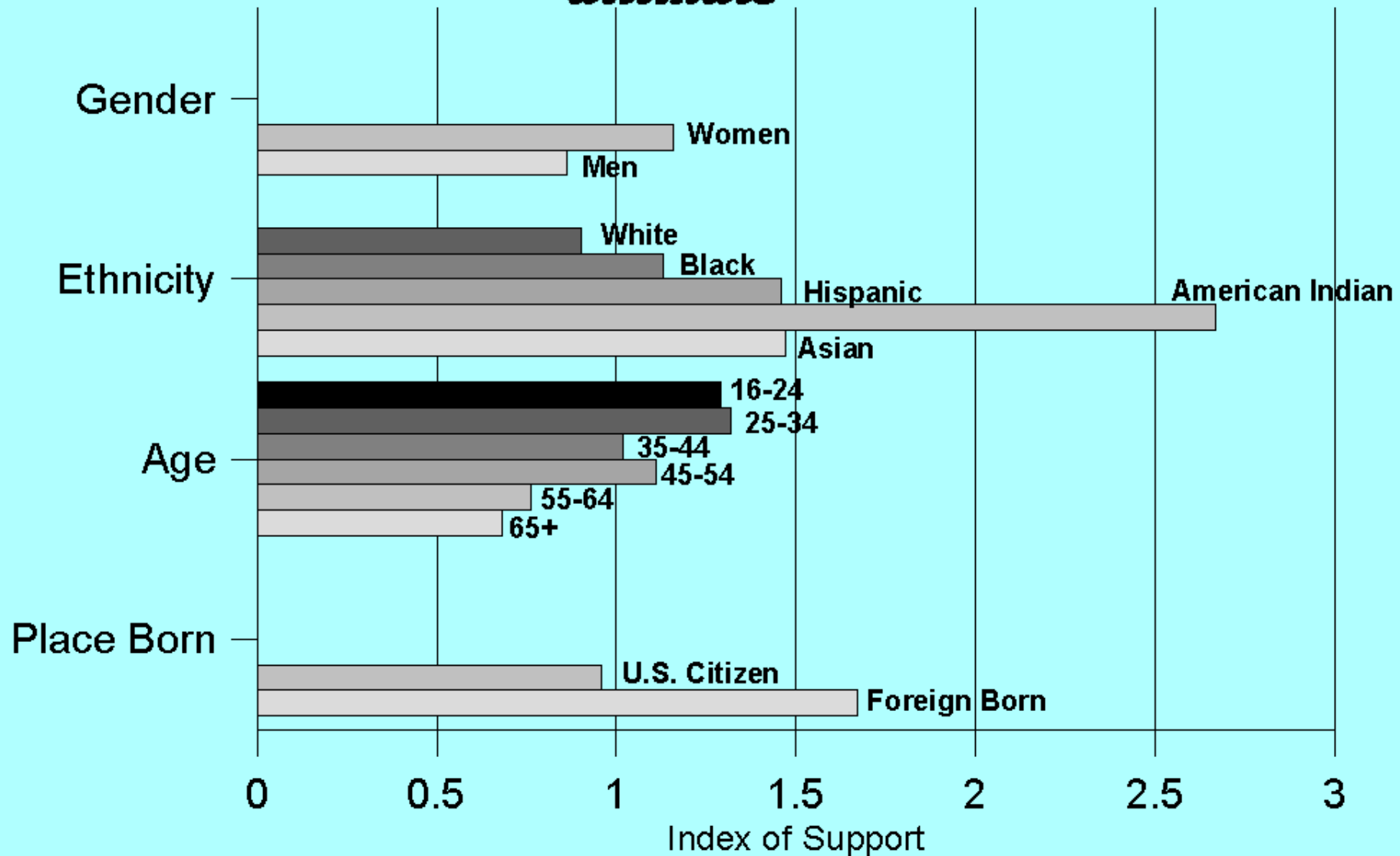
The Most Important Benefits of Wilderness

Knowing that future generations will have wilderness areas



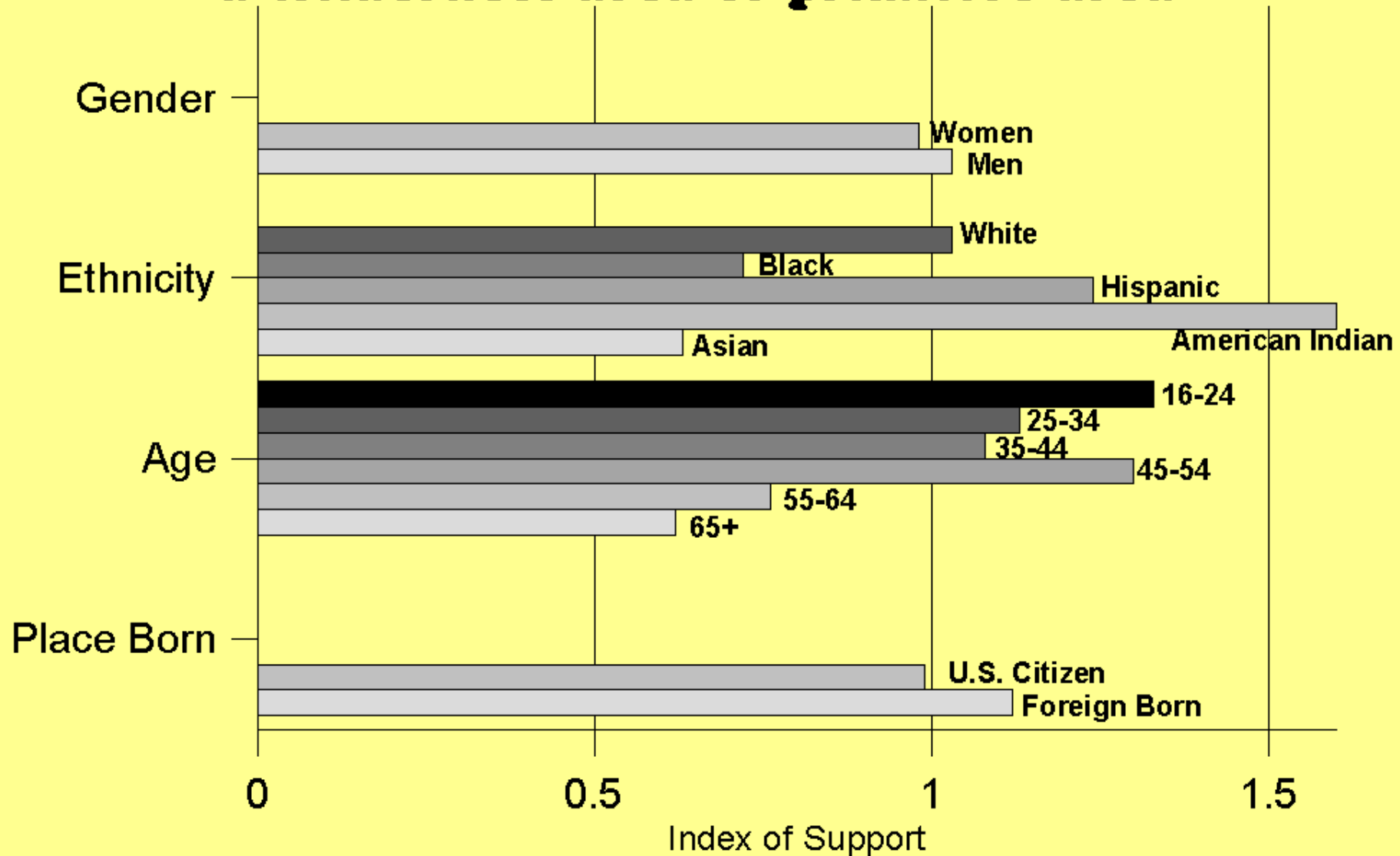
The Most Important Benefits of Wilderness

Preserving unique wild plants and animals



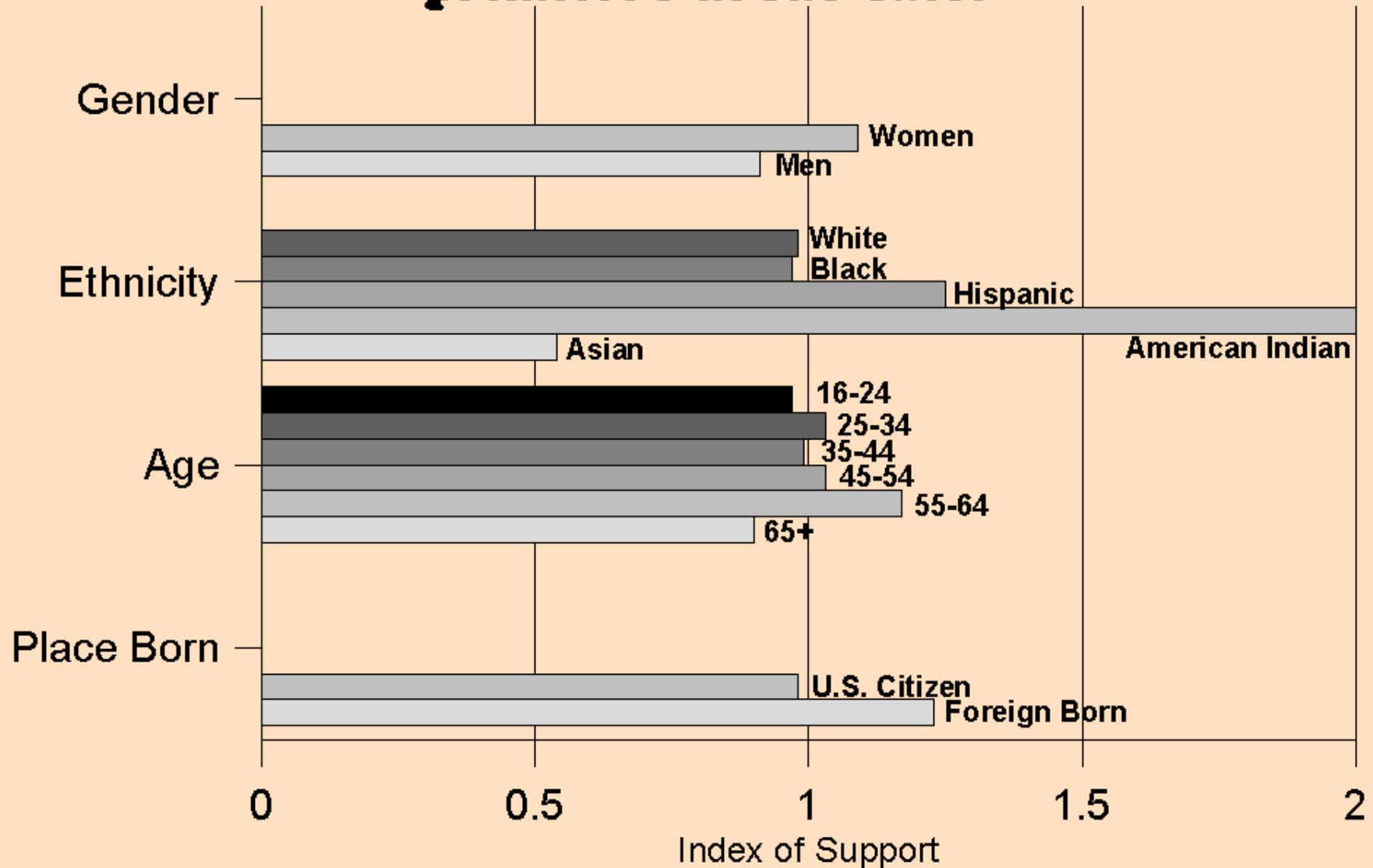
The Most Important Benefits of Wilderness

***Knowing I will have future option to visit
a wilderness area or primitive area***



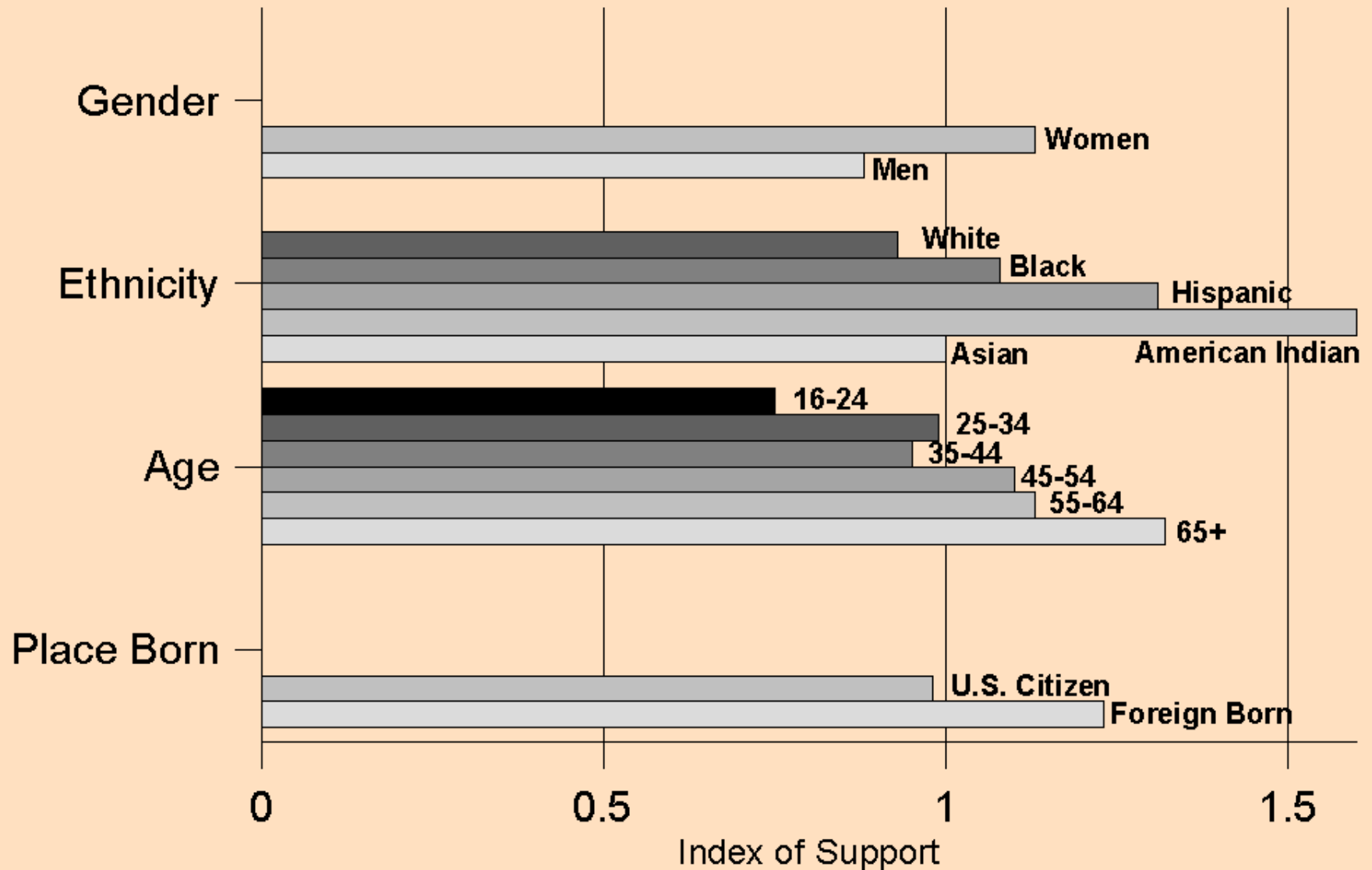
The Most Important Benefits of Wilderness

Just knowing that wilderness and primitive areas exist



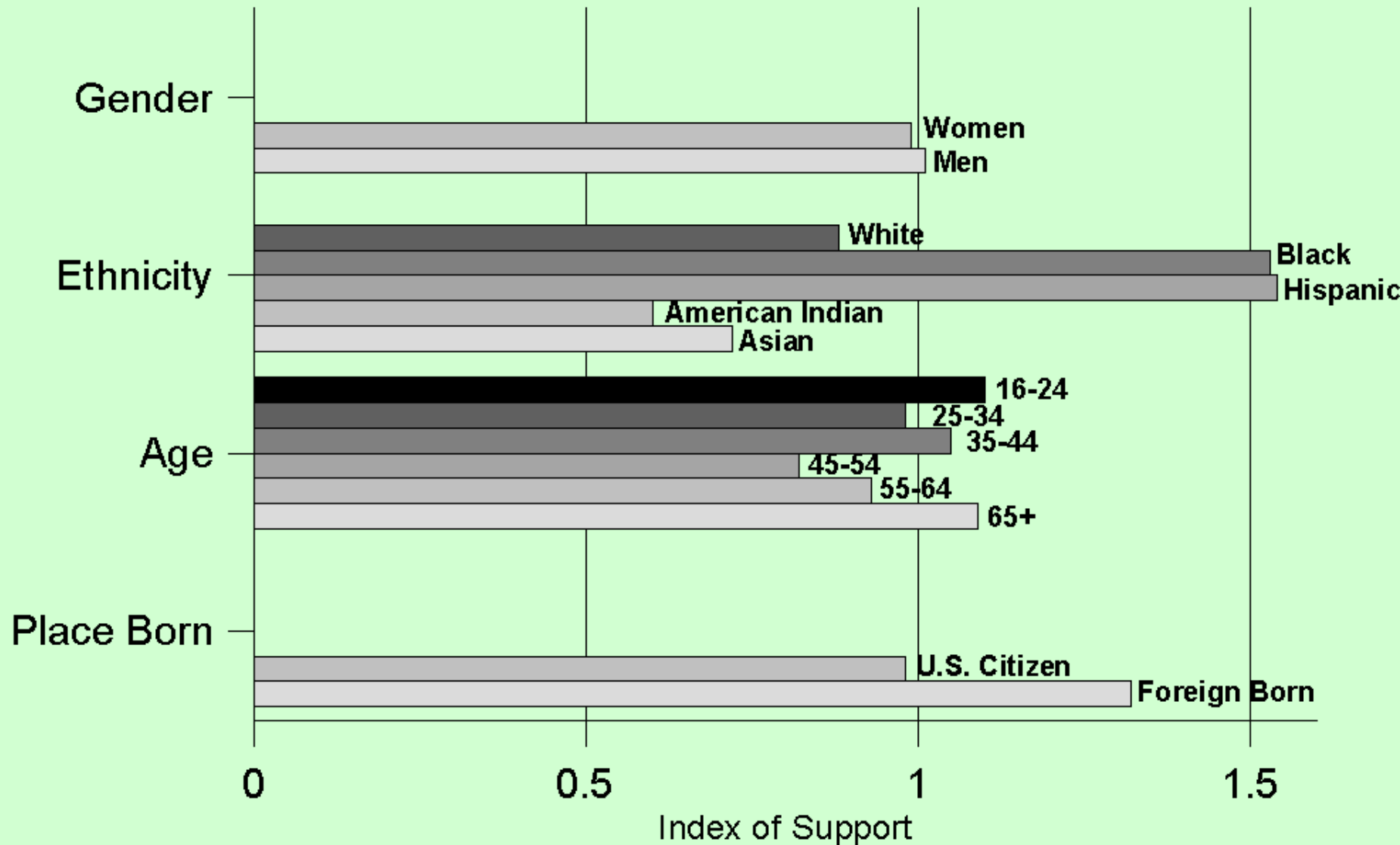
The Most Important Benefits of Wilderness

Providing scenic beauty



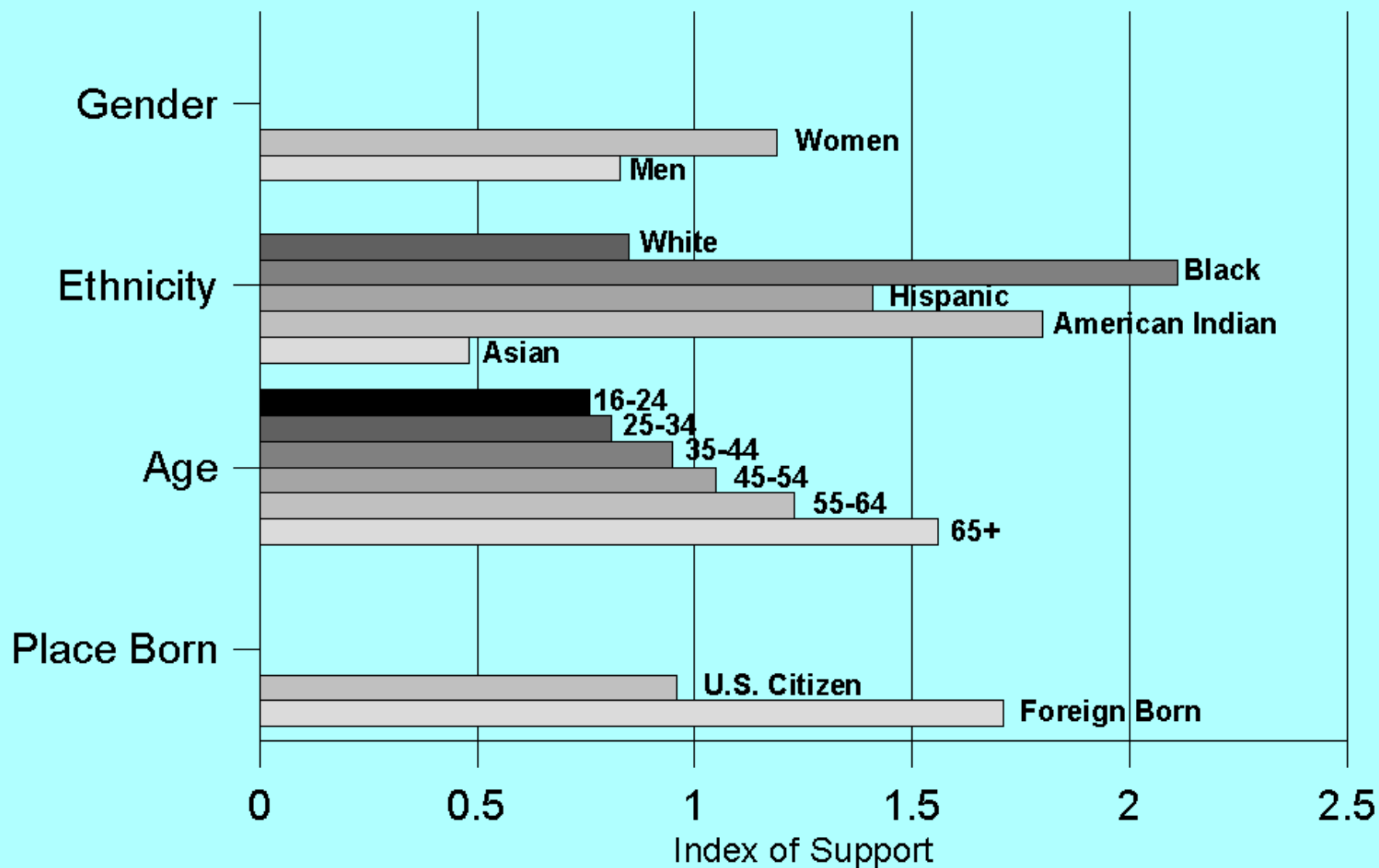
The Most Important Benefits of Wilderness

Providing recreation opportunities



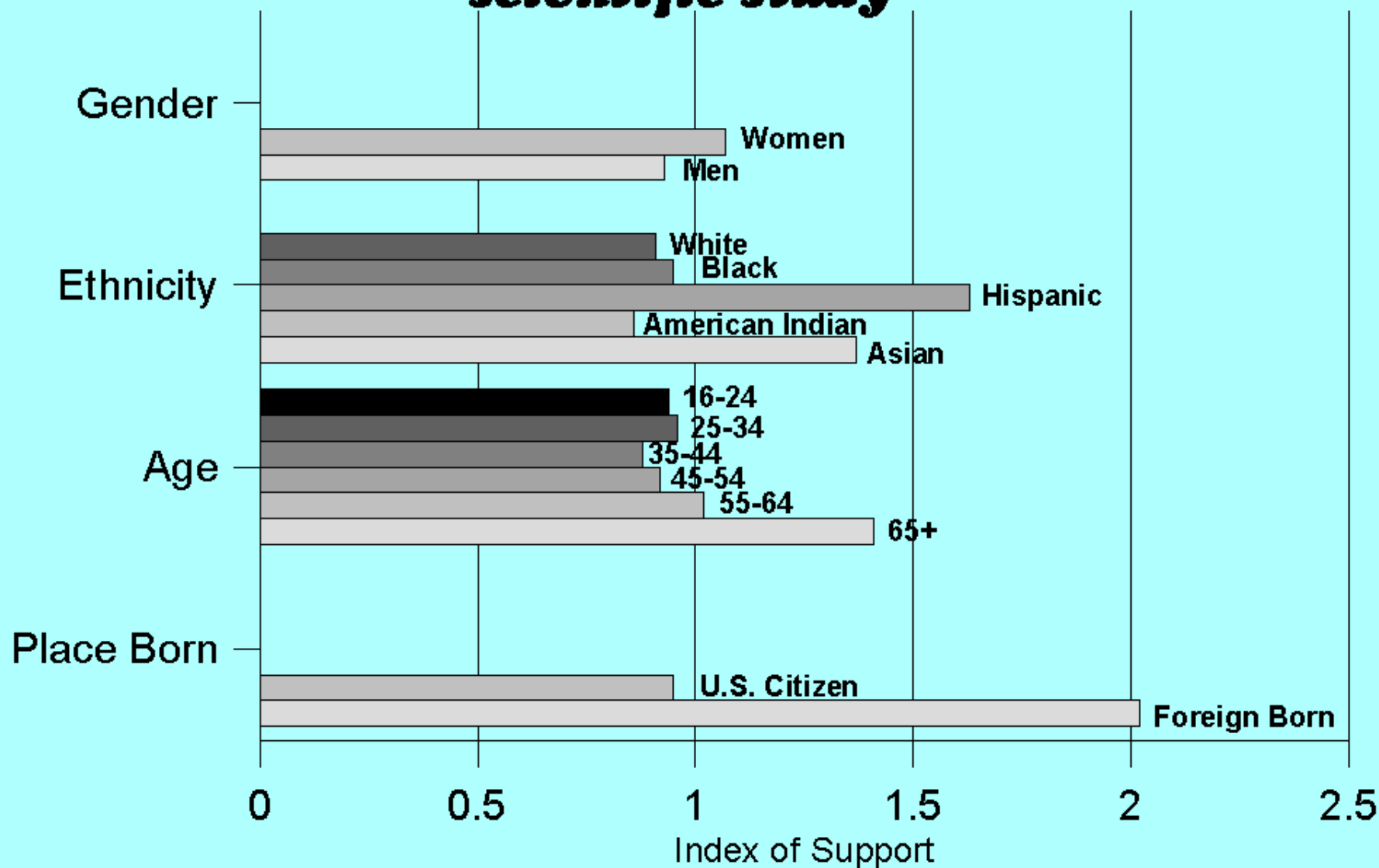
The Most Important Benefits of Wilderness

Providing spiritual inspiration



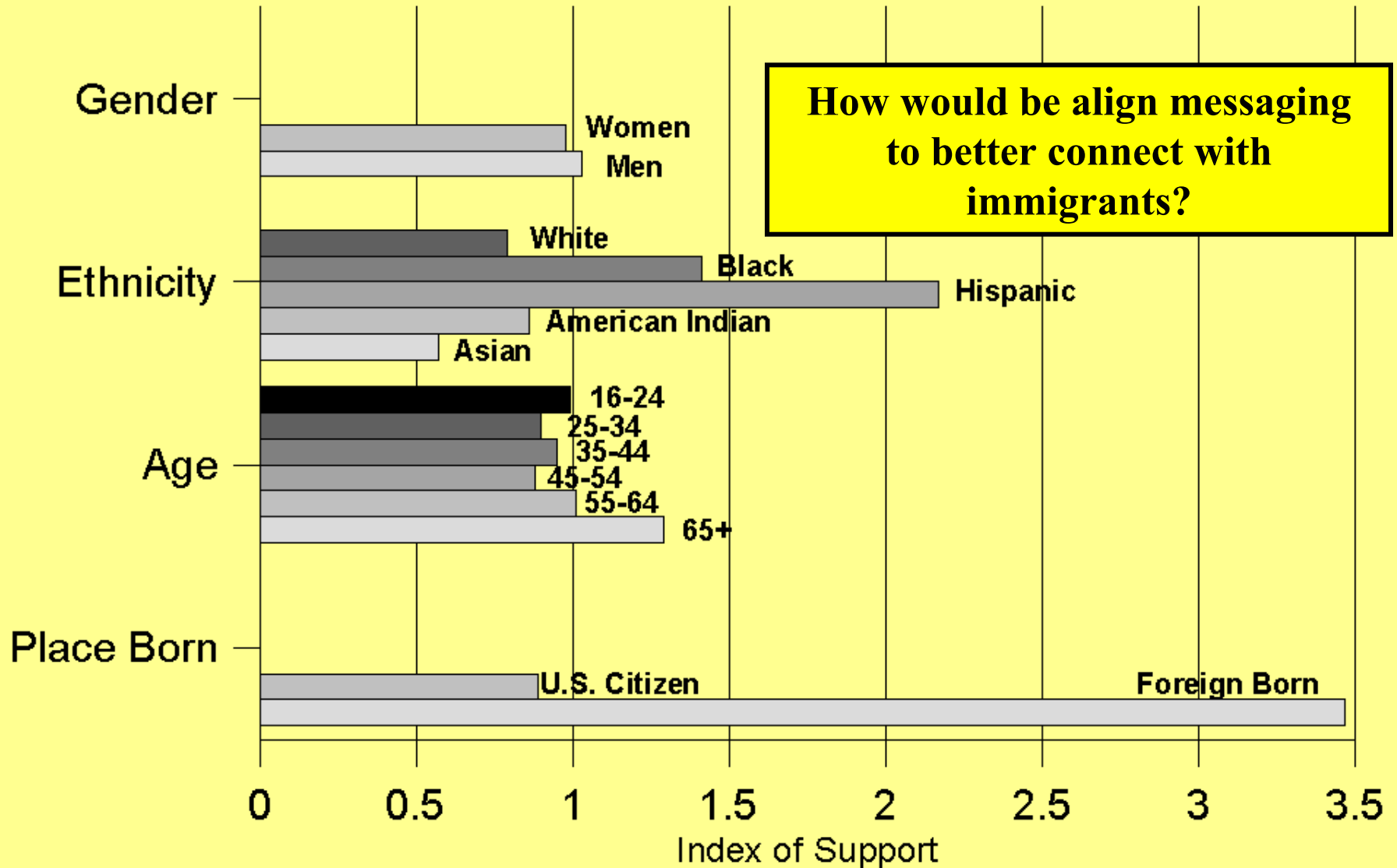
The Most Important Benefits of Wilderness

Preserving natural areas for scientific study



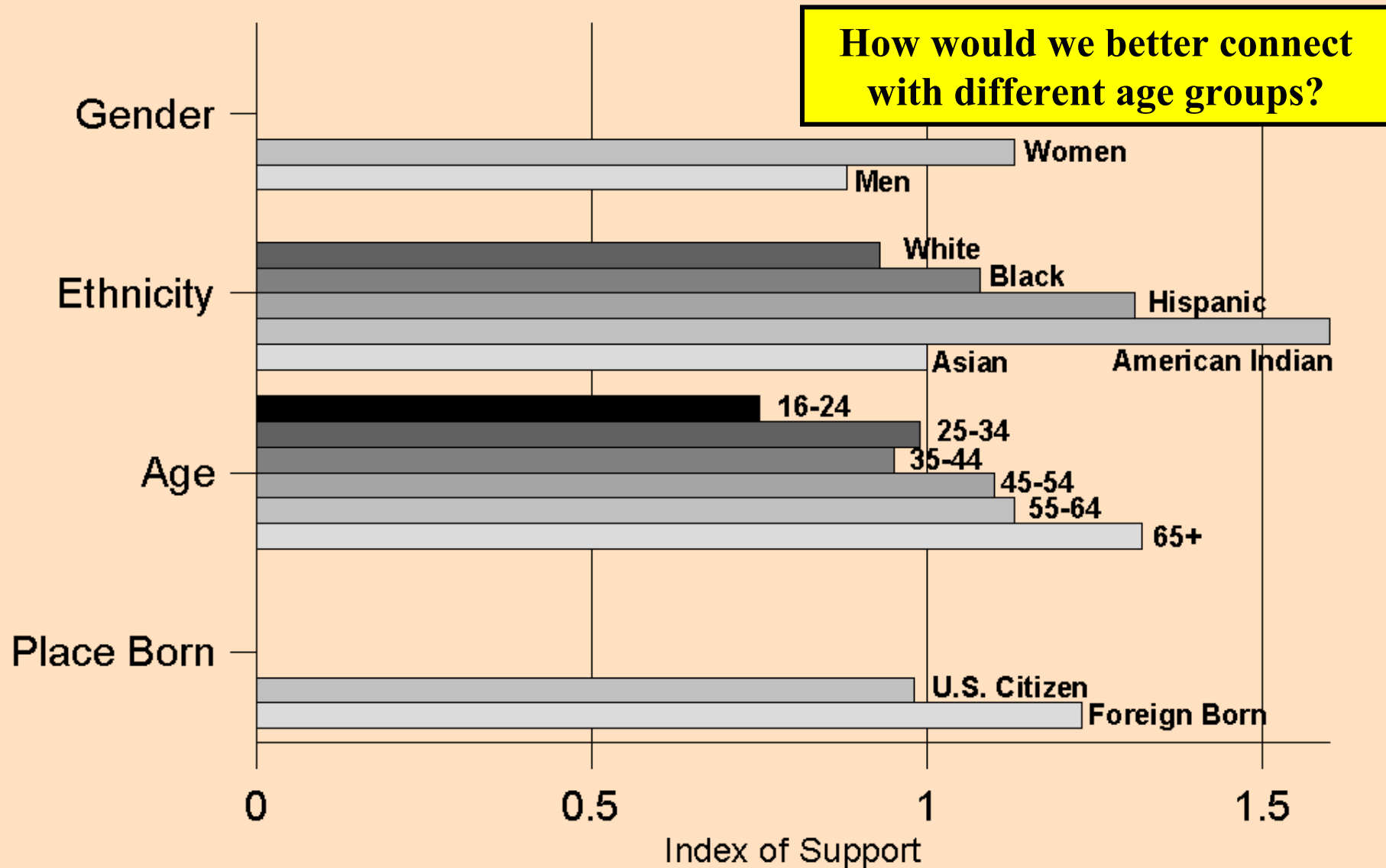
The Most Important Benefits of Wilderness

Providing income for the tourist industry



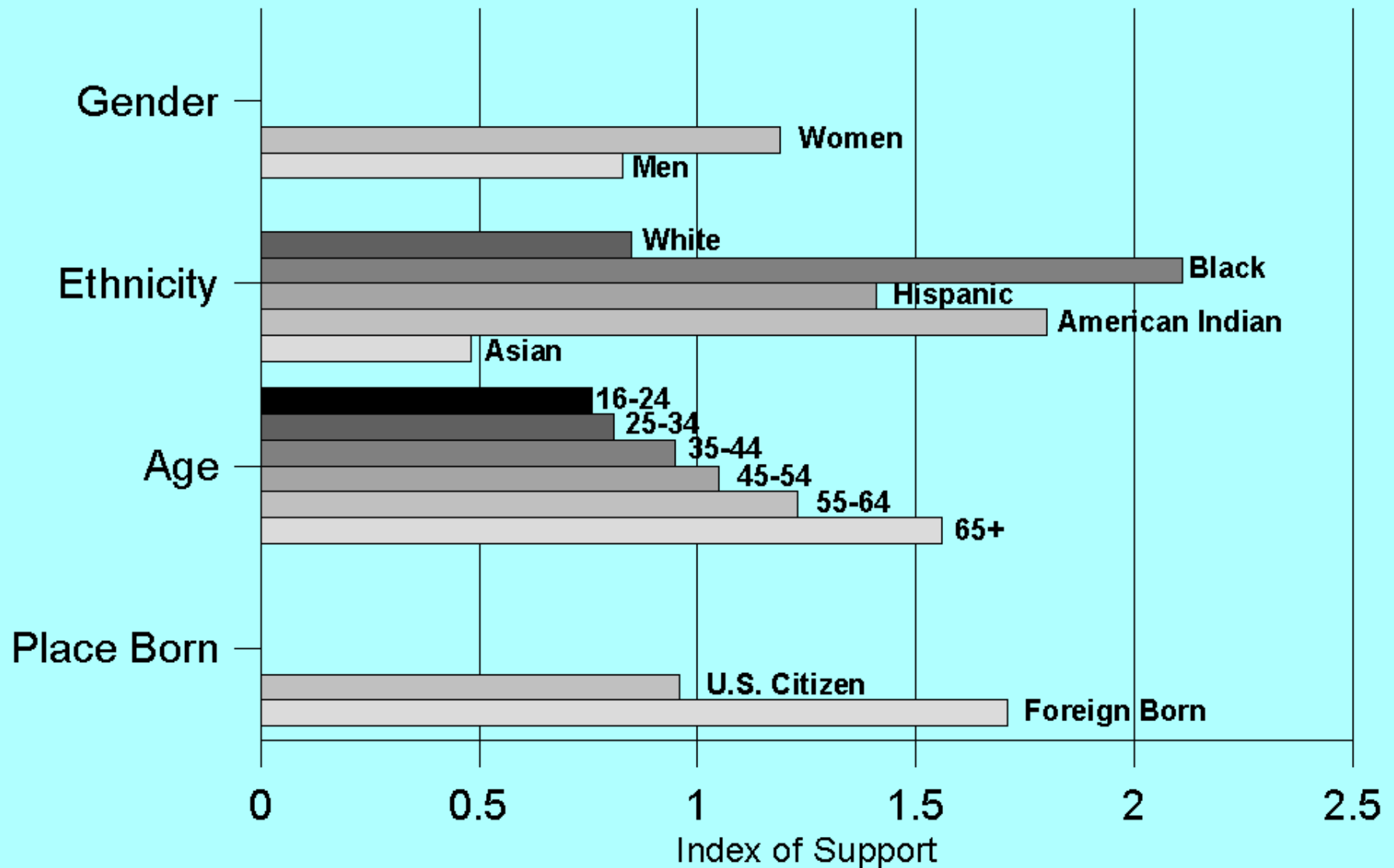
The Most Important Benefits of Wilderness

Providing scenic beauty



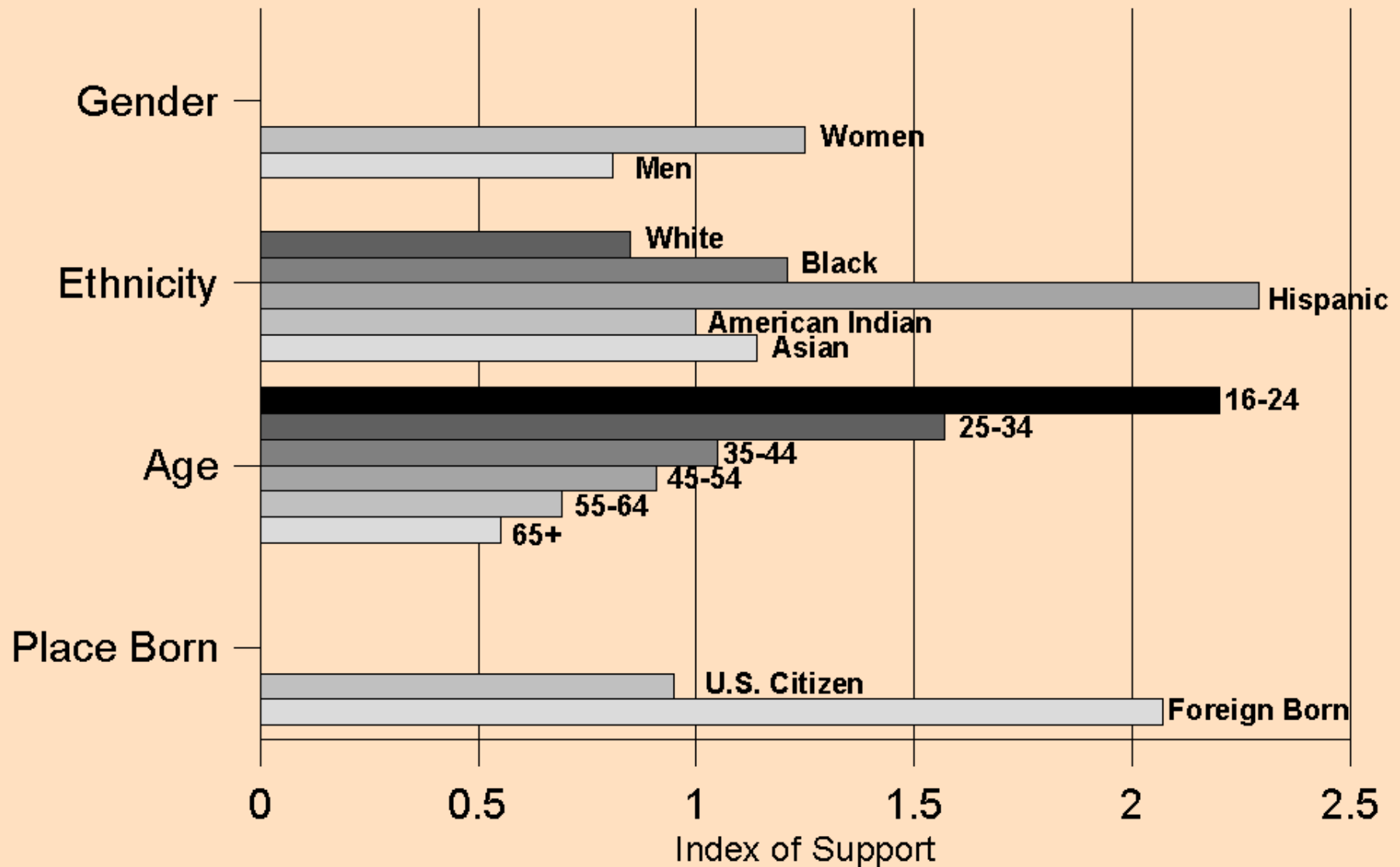
The Most Important Benefits of Wilderness

Providing spiritual inspiration



The Most Important Benefits of Wilderness

Protecting rare and endangered species



Public Views on Wilderness

- Nationally about 1/2 of American's 16+ report knowing about the NWPS
- Only 4.4% feel we have put too many acres into the NWPS:
 - Not enough, 52.6%
 - About right, 26.9%
 - Too much, 4.4%
 - Not sure, 15.4%

**Percentages of surveyed American population
indicating support or opposition for
designating additional wilderness in their
own state**

| | Percent of Respondents |
|-----------------|------------------------|
| Favor Total | 69.8 |
| Strongly Favor | 42.5 |
| Somewhat Favor | 27.3 |
| Oppose Total | 12.4 |
| Somewhat Oppose | 6.4 |
| Strongly Oppose | 6.0 |
| Neither | 12.2 |
| Don't Know | 5.6 |



Should we designate more Wilderness within Federal lands?

**Important/
Very Important**

Urban

62%

Suburban

56%

Rural

47%



Should we designate more Wilderness within Federal lands?

**Important/
Very Important**

White

59%

Black

49%

Hispanic

56%

Asian

75%



Should we designate more Wilderness within Federal lands?

**Important/
Very Important**

North 66%

South 55%

Great Plains 50%

Rockies 59%

Pacific Coast 59%

Recreation is another significant social benefit

Total visitation by agency, visitation by single-day and multi-day use and by region

| | |
|---------------------------------------------|-------------------|
| Total NWPS Site Visits | 12,825,610 |
| FS site visits | 10,517,000 |
| NPS site visits | 1,923,841 |
| FWS site visits | 333,466 |
| BLM site visits | 51,302 |
| Total single-day site visits | 8,458,490 |
| Total multi-day site visits | 4,367,120 |
| Total FS, FWS, & BLM site visits | 10,901,768 |
| FS, FWS, & BLM single-day site visits (73%) | 7,958,291 |
| FS, FWS & BLM multi-day site visits (27%) | 2,943,477 |
| Total NPS site visits | 1,923,841 |
| NPS single-day use (26%) | 500,199 |
| NPS multi-day use (74%) | 1,423,643 |

**Mean
scores of
responses
to 16
wilderness
recreation
experience
preference
domains
from eight
designated
wilderness
areas**

| Benefit | Grand Mean |
|-------------------------|------------|
| Enjoy nature | 1.5 |
| Physical fitness | 2.0 |
| Reduce tensions | 2.2 |
| Escape | 2.2 |
| Outdoor learning | 2.3 |
| Sharing values | 2.8 |
| Independence | 3.0 |
| Family kinship | 3.0 |
| Spiritual | 3.1 |
| Considerate people | 3.3 |
| Achievement/stimulation | 3.4 |
| Physical rest | 3.5 |
| Teach/lead others | 3.8 |
| Risk taking | 4.6 |
| Risk reduction | 4.7 |
| Meet new people | 5.1 |

Population-wide Total (Overlapping) Occasions Per Year by Groupings of Activities (2000-01)

PERCENT OF POPULATION PARTICIPATING AND PER-CAPITA OCCASSIONS

| | | |
|-----------------------------------------------|-------|-------|
| All activities | 98.5% | 273.8 |
| Viewing, learning, gathering activities | 88.4% | 136.1 |
| Developed site activities | 94.9% | 93.3 |
| Activities on trails | 40.4% | 40.3 |
| Swimming, surfing, and other beach activities | 2.8% | 36.6 |
| Motorized activities | 62.0% | 31.3 |
| Hunting and fishing | 38.1% | 26.9 |
| Snow activities | 19.3% | 13.3 |
| Risk activities | 35.2% | 12.0 |
| Non-motorized activities | 22.8% | 7.9 |

Outdoor Recreation for 21st Century America

**A Report to the Nation:
The National Survey on Recreation
and the Environment**



**H. Ken Cordell
Principal Author**

Outdoor Recreation for 21st Century America

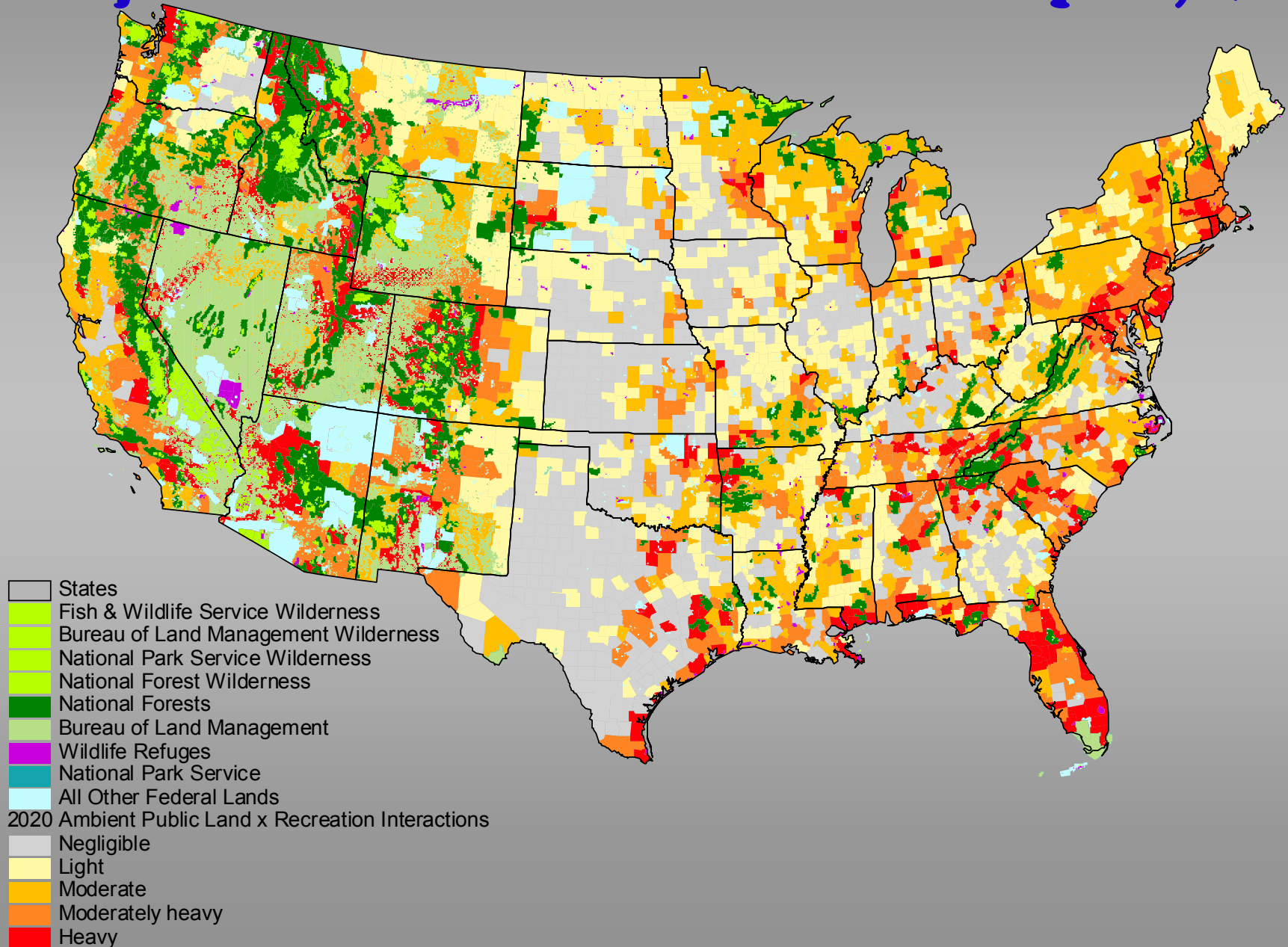
Cordell
Principal Author



VENTURE

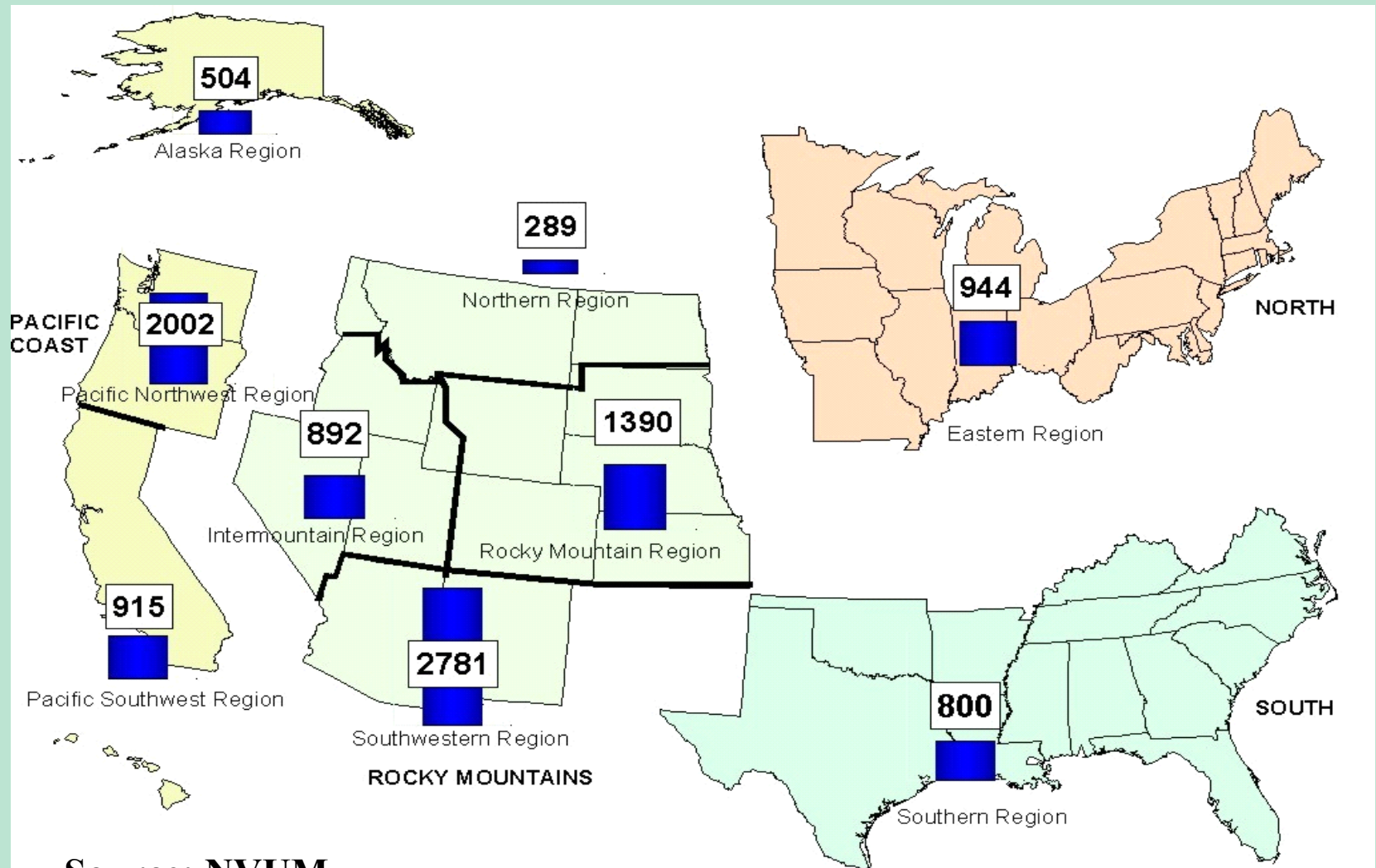
Venture Publishing

Public Lands and NWPS Lands Overlaid onto Projected Recreation Demand Hotspots, 2020



Wilderness Visits to National Forests 2001

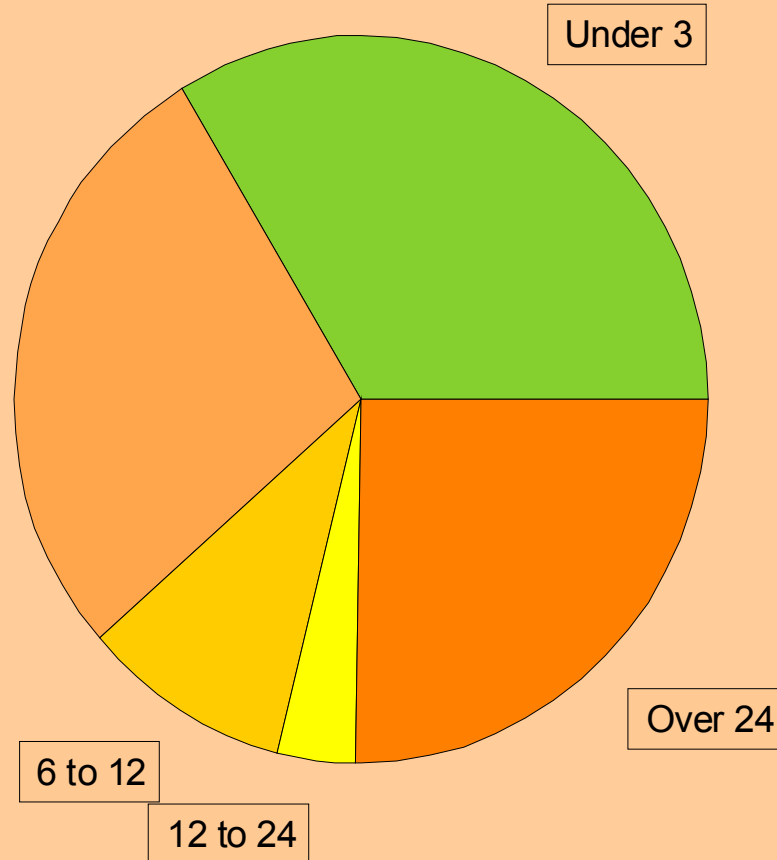
(Thousands)



Source: NVUM

Distribution by Length of Stay (in hours)

Wilderness



Percentages of single-day wilderness visits by Forest Service Region

| Forest Service Region | Percentage single-day use (FS only) |
|-------------------------------|----------------------------------------|
| R1 – Northern Rocky Mountain | 55.8 |
| R2 – Rocky Mountain | 85.9 |
| R3 – Rocky Mountain-Southwest | 93.6 |
| R4 – Intermountain | 84.0 |
| R5 – Pacific – Southwest | 77.5 |
| R6 – Pacific – Northwest | 62.6 |
| R8 – South | 70.8 |
| R9 – North | 29.8 |
| R10 – Alaska | 98.1 |
| Average | 73.1 |

Duration of Wilderness Visits

| Site Type | Site visit (hours) |
|---------------------|--------------------|
| Developed Day Use | 1.9 |
| Developed Overnite | 25.9 |
| General Forest Area | 26.5 |
| Wilderness | 19.7 |

Age Distribution (%)

| Category | All NF Visits | Wilderness Site Visits |
|--------------|---------------|------------------------|
| 20 and Under | 17.6 | 21.6 |
| 21 to 30 | 13.3 | 20.4 |
| 31 to 40 | 22.1 | 33.4 |
| 41 to 50 | 15.0 | 15.1 |
| 51 to 60 | 12.8 | 6.1 |
| 61 to 70 | 12.8 | 2.6 |
| Over 70 | 6.6 | 0.7 |

Race/ethnicity Distribution (%)

| Category | All NF Visits | Wilderness Site Visits |
|--------------------------------------------|----------------------|-------------------------------|
| White | 97.4 | 97.3 |
| Spanish, Hispanic or Latino | 0.4 | 0 |
| Black/African American | 0.8 | 1.5 |
| Asian | 0.3 | 1.2 |
| Am. Indian/ Alaska Native | 0.1 | 0 |
| Native Hawaiian or Pacific Islander | 0.8 | 0 |
| Other | 0.2 | 0 |

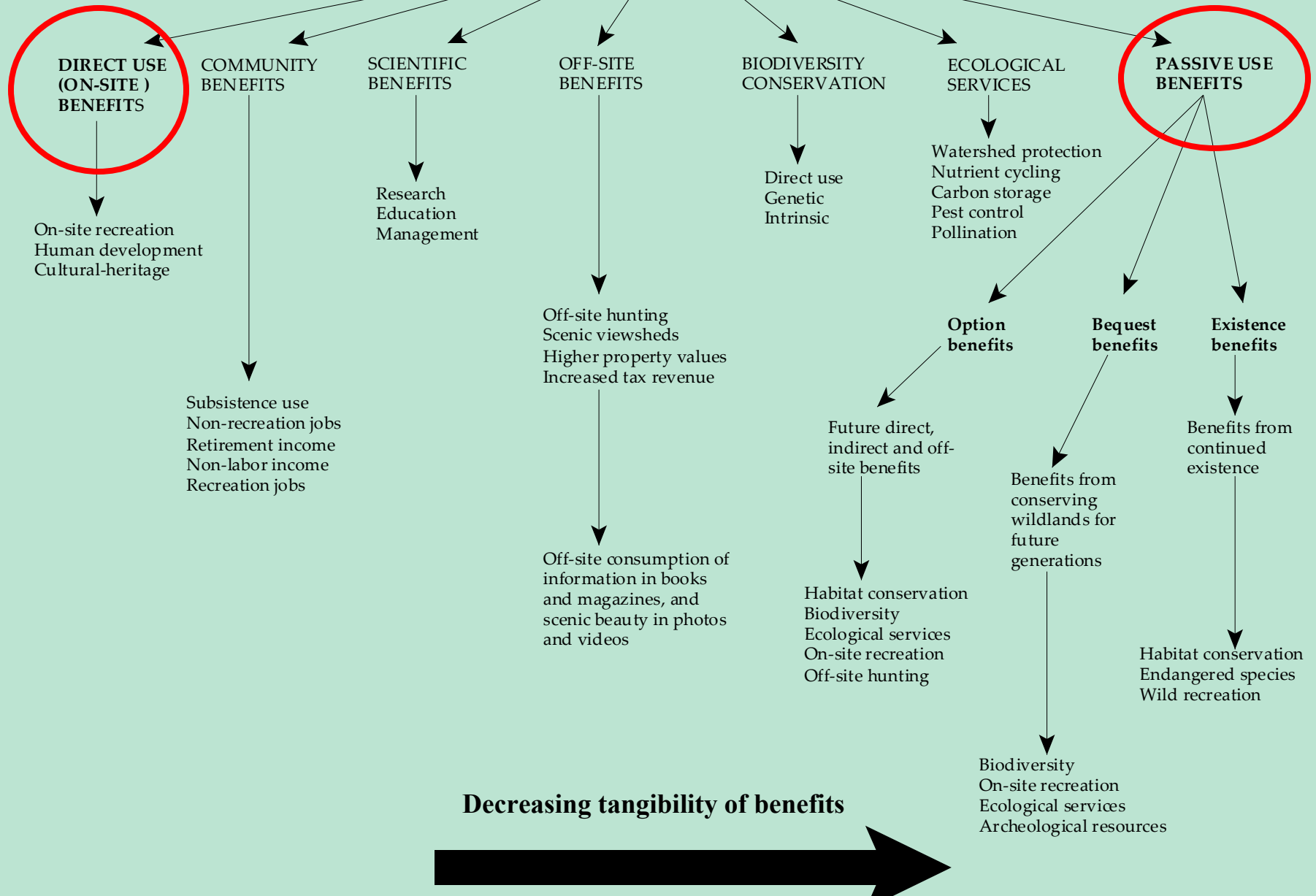
Perceptions of Crowding

| Perception of crowding | Overnight Sites | Day Use Sites | Wilderness | General Forest |
|------------------------|-----------------|---------------|------------|----------------|
| 10 Over crowded | 0.0 | 0.0 | 0.0 | 2.9 |
| 9 | 6.3 | 0.0 | 0.0 | 0.0 |
| 8 | 16.9 | 1.1 | 14.4 | 1.1 |
| 7 | 3.2 | 4.8 | 0.0 | 4.7 |
| 6 | 13.7 | 2.0 | 1.3 | 10.1 |
| 5 | 27.9 | 15.1 | 53.4 | 19.2 |
| 4 | 13.7 | 7.7 | 5.0 | 15.1 |
| 3 | 13.3 | 27.2 | 14.3 | 13.8 |
| 2 | 0.0 | 25.9 | 11.6 | 18.4 |
| 1 Hardly anyone there | 5.1 | 16.2 | 0.0 | 14.6 |

ABOUT THIS PRESENTATION

1. Some selected principles of good Wilderness management
2. The changing social context
3. A big picture description of the NWPS and the characteristic of “Wildness”
4. A Framework of Wilderness values
5. Social Values and Group Differences
6. **Economic Values**
7. Ecological and Intrinsic Values

TOTAL ECONOMIC BENEFITS OF WILDERNESS



Direct On-Site Use and Passive Use Economic Value

| Value Type | Use | Net Economic Value | Annual Net Economic Value |
|---------------------------------------------|---------------------------------------|-----------------------|---------------------------|
| On-site recreation value: Single-day use | 8.4 million single-day trips per year | \$19.50 per trip | \$165 million |
| On-site recreation value: Multi-day use | 4.4 million multi-day trips per year | \$68.47 | \$299 million |
| Passive use Value | 52.7 million households | \$63.31 per household | \$3.34 billion |
| | | Total Annual NEV | \$3.8 billion |
| | | Per acre | \$35.89 |

Summation

- **Passive use net economic value per annum is estimated to be \$3.45 billion.**
- **On-site recreation use value is estimated to be around \$464 million per year**
- **Passive use value is estimated to be over 7 times (7.4 actually) greater than on-site recreation use value.**

Economic Impacts

Does Wilderness Designation Harm Rural Economies?

- **There are no discernible general patterns of negative impacts from Wilderness existing in rural counties**
- **Economic growth is greater for non-metropolitan counties that contain or are near publicly-owned natural areas, including Wilderness**
- **Wilderness contributes to the quality of life of local residents and it is actively sought in migration decisions**
- **The role of Wilderness in local economic development is similar to the old BASF commercial: “We don’t build it, we just make it better”**
- **Economic growth is increasingly being generated by multiplier effects from consumer spending in the services and trades sectors**
- **But, the total volume of visitation to Wilderness, and the associated spending by nonlocal visitors is not sufficient to sustain any significant tourism industry by itself**
- **“Wilderness protection does not impoverish communities by locking up resources. Rather, it protects the economic future of those communities by preserving high quality natural environments that are increasing in demand across the nation.” (Tom Power 1996)**

Economic Growth Effects of Wilderness in Non-Metropolitan Western Counties

| Counties Containing: | Number of Counties | Employment Growth 1969-1997 (%) | Income Growth 1969-1997 (%) |
|------------------------------------------------------|-----------------------|---------------------------------------|--------------------------------|
| No federal lands | 13 | 63.5 | 755.9 |
| Any federal lands | 401 | 142.7 | 992.5 |
| Federal multiple use lands | 172 | 115.6 | 864.5 |
| Federal multiple use lands and protected lands | 230 | 163.3 | 1089.7 |
| More protected lands than multiple use lands | 13 | 197.3 | 1109.2 |

Correlation of percentage of Wilderness in a sample of western rural counties and their economic development indicators

| | Employment growth, 1969-1996 | Per Capita Income growth, 1969-1996 | Total Income growth, 1969-1996 | Population growth, 1969-1996 |
|----------------------------------------------------------------------|------------------------------------|-------------------------------------------|--------------------------------------|------------------------------------|
| All rural counties (n=113) | 0.382 | 0.253 | 0.341 | 0.337 |
| Rural counties not adjacent to metropolitan areas (n=83) | 0.443 | 0.289 | 0.406 | 0.453 |

Percent agreeing or disagreeing with Wilderness statement, National Survey

| Statement | Agree | Disagree | No Opinion |
|----------------------------------------------------------------------|-------|----------|------------|
| Nearby wilderness areas are important to county | 81 | 10 | 9 |
| Wilderness important reason why move or stay | 53 | 26 | 22 |
| There should be more access to wilderness | 43 | 36 | 21 |
| Additional wilderness should be designated nearby | 39 | 35 | 26 |
| Wilderness areas should be opened for mineral and energy development | 22 | 65 | 13 |

Economic Impacts

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Additional Values (No less Important)

- Ecological (The contribution of Wilderness to sustaining natural systems that support life, human and non-human)
- Intrinsic (From a philosopher's perspective, the intrinsic value of something is really its claim *to be*)

TOP 5 VALUES

- Protecting air quality
- Protecting water quality
- Protecting wildlife habitat
- Protecting T&E species
- Legacy for future generations
(By Majority Vote)

SOME PRINCIPLES of GOOD WILDERNESS MANAGEMENT

- Wilderness is first and foremost a national resource for the benefit of all, human society and non-humans alike
- National, regional, and local social, economic, political, and environmental conditions and trends define the changing context within which Wilderness is managed. It is important to know the trends
- The optimum Wilderness management goals may not always please local interests or the current visitors
- There are equity and other social issues associated with every management decision made and accounting for them is a responsibility in good management
- Fragmented (compartmentalized) decision making is easier, but not better
- Good planning is forward looking, based on what could and should be, not necessarily what is or has been

SOME POINTS TO PONDER

- Wilderness is an American treasure, owned by the people of this Country, held by you in a trust of stewardship
- Stewardship includes being informed of the positions and values of the “Stockholders” of this rich national treasure—IT IS IMPORTANT TO KNOW THE DATA
- Limiting data to on-site surveys and “conventional wisdom” ignores the vast majority of the Wilderness System’s owners, the public, most of whom will never show up—USE HOUSEHOLD SURVEYS

The Multiple Values of Wilderness




H. Ken Cordell
Principal Author

The Multiple Values of Wilderness

Cordell
Principal Author





The National Wilderness Preservation System: Character and Values

Ken Cordell, Forest Service Research, and
Ralph Swain, Forest Service Wilderness Management

www.srs.fs.fed.us/trends

END

QUESTIONS

- My questions:
 - 1. Many different aspects of Wilderness are valued by the American Public. Among these values are passive use values and on-site recreation use values. Science-based estimates of one of these types of values is larger in economic terms than the other. Which is larger AND by a magnitude of how much? (E.g., twice as large, 4 times as large, etc.)
 - _____
_____.
 - 2. What are the three dimensions of Wilderness values that have resulted from public survey research Ken Cordell and his colleagues have done recently. Please put them in the correct order from the highest public support percentage (first one on your list) to the lowest public support percentage (third one on your list).
 - _____
 - _____
 - _____

- **4. Many different aspects of Wilderness are valued by the American Public. Among these values are passive use values and on-site recreation use values. Science-based estimates of one of these types of values are larger in economic terms than the other. Which is larger AND by a magnitude of how much. (e.g., twice as large, 4 times as large, etc.)**
- Passive use net economic value per annum is estimated to be \$3.45 billion. On-site recreation use value is estimated to be around \$464 million per year. Passive use value is estimated to be over 7 times (7.4 actually) greater than on-site recreation use value.
- **5. What are the three dimensions of Wilderness values that have resulted from public survey research Ken Cordell and his colleagues have done recently? Please put them in the correct order from the highest public support percentage (first one on your list) to the lowest public support percentage (third one on your list).**
 - 1. Ecological services, especially clean air and water for humans and other species, on and off site
 - 2. Ecosystem protection including wildlife habitat, endangered species and rare and unique species
 - 3. Amenities for human appreciation and use including wildlands for future generations, recreation, spiritual inspiration, scientific study, and a draw for tourism